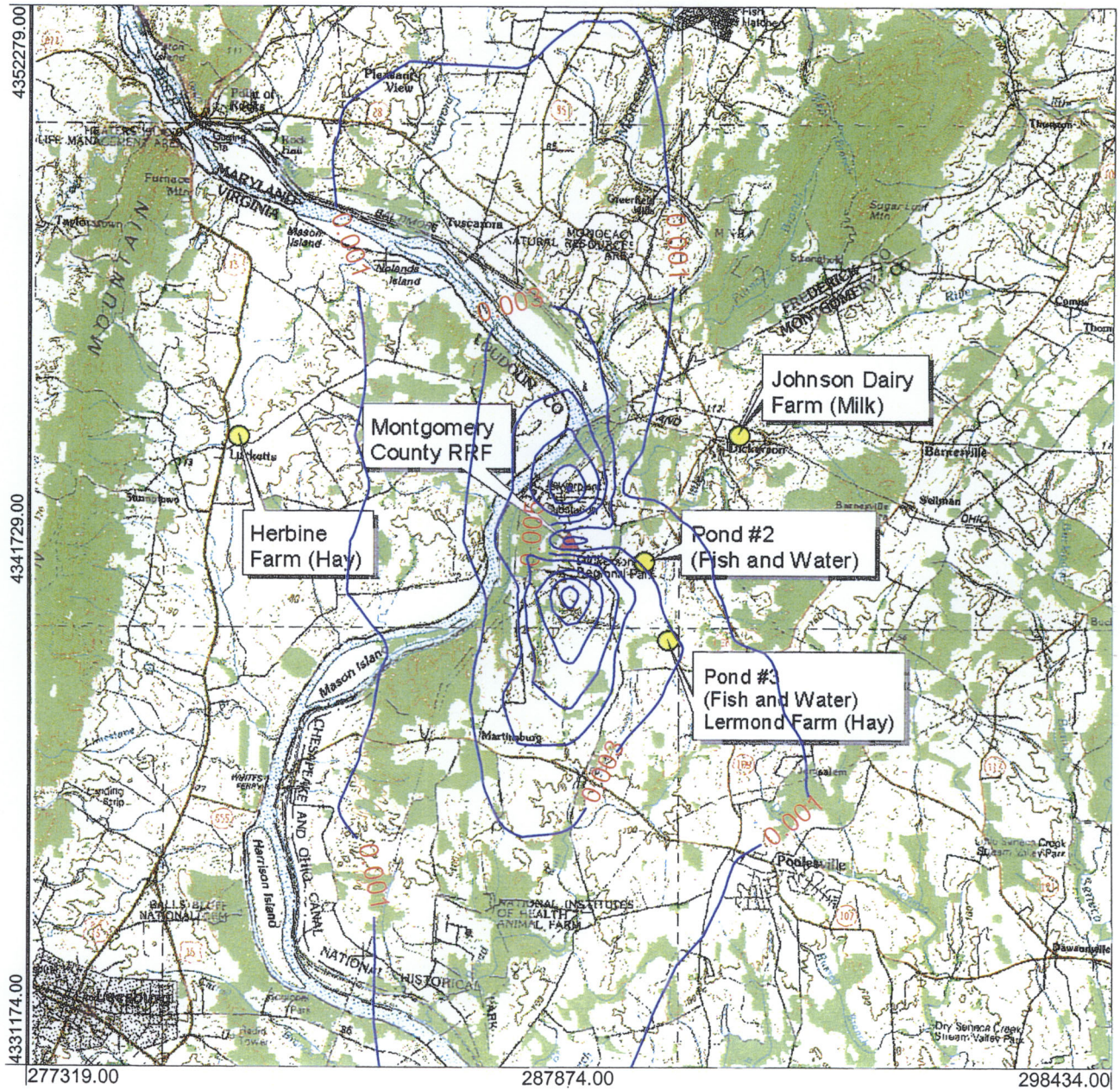



Appendix A

Deposition modeling isopleths

PROJECT NAME :

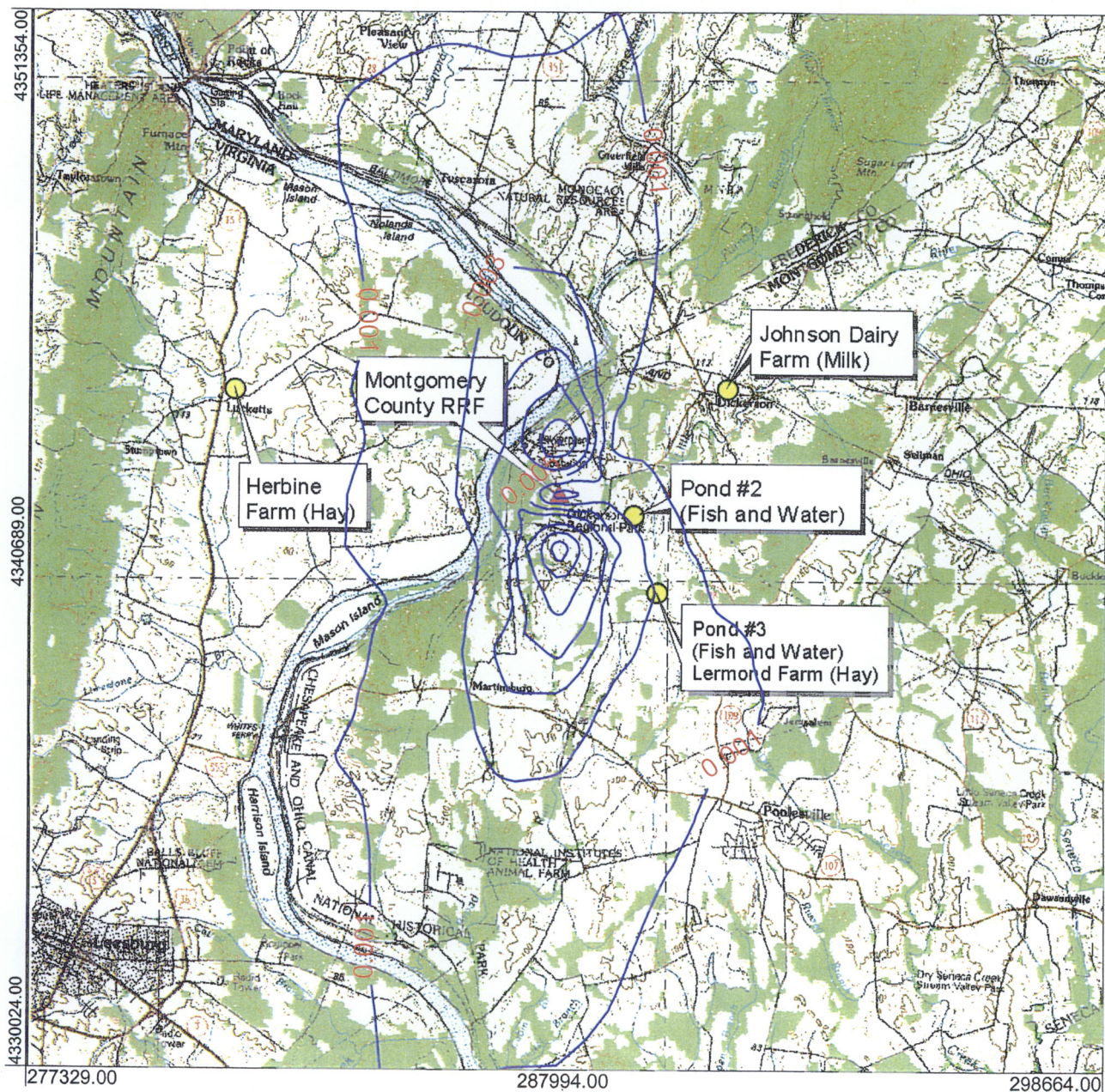
**Figure 1 - Modeled Total Deposition (g/m²-yr)
Montgomery County, RRF**




DEPOS	# RECEPTORS : 6473	COMMENTS : Site Location is Red Triangle Contour interval is .002 g/m ² -yr up to .007 g/m ² -yr Contour interval is .004 g/m ² -yr up to .019 g/m ² -yr	0  4 km
MAX : 0.3026	UNITS : g/m ² -yr	DATE : 2/25/02	PROJECT/PLOT NO. : 04739-001

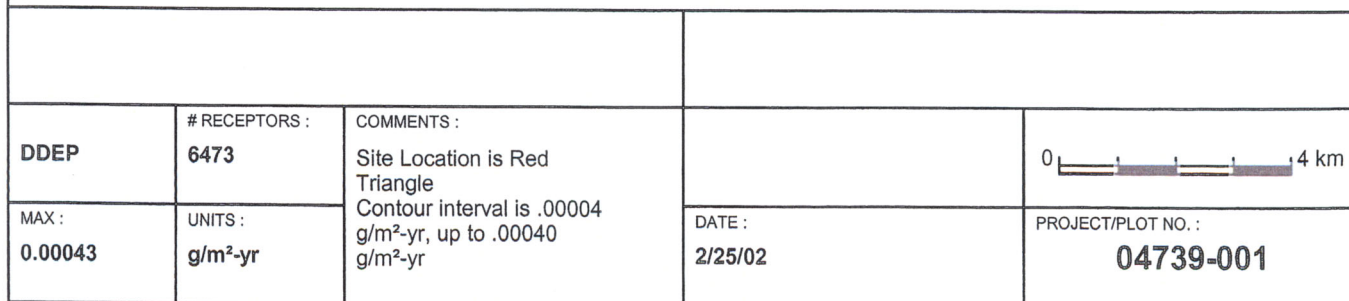
PROJECT NAME :

**Figure 2 - Modeled Wet Deposition ($\text{g}/\text{m}^2\text{-yr}$)
Montgomery County, RRF**



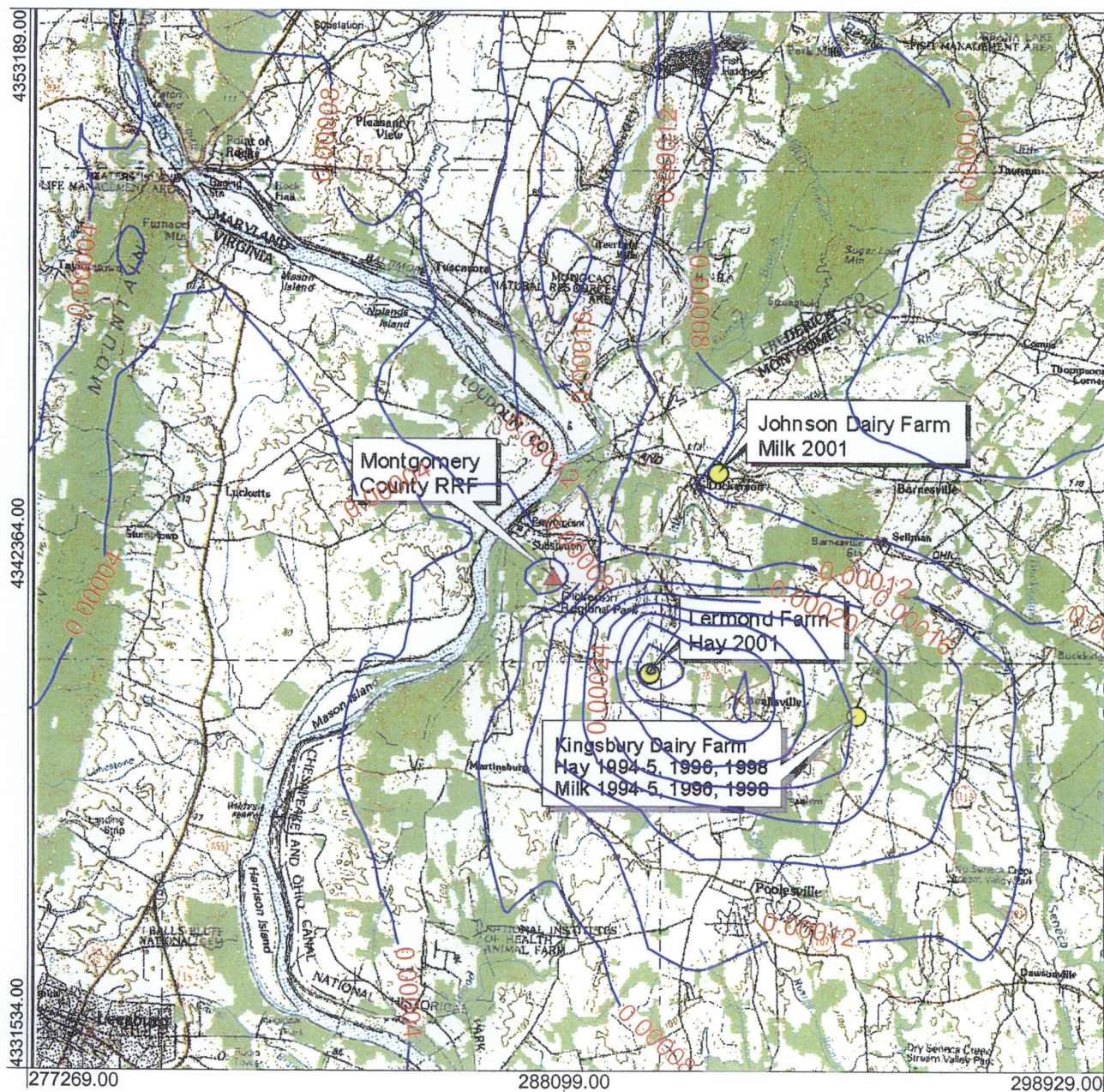
WDEP	# RECEPTORS : 6473	COMMENTS : Site Location is Red Triangle Contour interval is .002 $\text{g}/\text{m}^2\text{-yr}$ up to .007 $\text{g}/\text{m}^2\text{-yr}$ Contour interval is .004 $\text{g}/\text{m}^2\text{-yr}$ up to .019 $\text{g}/\text{m}^2\text{-yr}$	0  4 km
MAX : 0.3026	UNITS : $\text{g}/\text{m}^2\text{-yr}$	DATE : 2/25/02	PROJECT/PLOT NO. : 04739-001

**Figure 3 - Modeled Dry Deposition ($\text{g}/\text{m}^2\text{-yr}$)
Montgomery County, RRF**



PROJECT NAME :

**Figure 4 - Relative Positions of 2001 and Historic Milk and Hay Sampling Locations - Dry Deposition ($\text{g}/\text{m}^2\text{-yr}$)
Montgomery County, RRF**



Appendix B

Scope of work for conducting non-air media sampling (ENSR, May 2007)

Prepared for:
Montgomery County Department of Public Works & Transportation
Division of Solid Wastes Services
Rockville, Maryland



Work Plan for Conducting the Fourth Operational Phase Non-Air Media Sampling Program, Spring 2007

ENSR Corporation
May 2007
Document No.: 04739-003-001

Prepared for:
Montgomery County Department of Public Works & Transportation
Division of Solid Wastes Services
Rockville, Maryland



Work Plan for Conducting the Fourth Operational Phase Non-Air Media Sampling Program, Spring 2007

A blue ink signature, likely of Kristen Durocher, is written in a cursive style.

Prepared By: Kristen Durocher

A black ink signature, likely of Brian Stormwind, is written in a cursive style.

Reviewed By: Brian Stormwind

ENSR Corporation
May 2007
Document No.: 04739-003-001

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Appendix A: ENSR SOP 1007

1.0 Introduction

The Montgomery County, Maryland Solid Waste Resource Recovery Facility (RRF), near Dickerson, Maryland became operational in the spring of 1995. During the planning process for this facility, citizens in the area expressed concerns regarding the potential human health effects associated with exposure to emissions from this facility. In response to this concern, the County initiated a multi-media monitoring program in the vicinity of the facility to monitor the concentrations of various organic (e.g., dioxins/furans) and inorganic (e.g., metals) constituents in abiotic and biotic environmental media. The sampling program includes air-monitoring and non-air media monitoring components. This work plan addresses the non-air monitoring component of the multi-media monitoring program that will be conducted in June 2007.

The pre-operational phase of the non-air media monitoring was conducted between May 1994 and April 1995 (i.e., time zero monitoring). The pre-operational program was designed to provide baseline data for target chemicals in various non-air media, including (but not limited to) herbaceous crops (hay), farm pond surface water, fish tissue, and bovine (cow) milk. Subsequent to the facility becoming operational, an operational phase of non-air media monitoring was conducted in 1996, with limited supplemental data collection in 1998. ENSR conducted an independent review of the data collected in these programs by Roy F. Weston. Because the operational phase non-air media sampling program was conducted only after a year of operation, there was not sufficient time for potential accumulation of the chemicals sampled in the non-air media (crops, fish, etc.). Therefore, ENSR recommended that future non-air media sampling should be conducted at longer time intervals (a minimum of ten years) to allow sufficient time for accumulation of the sampled chemicals in the non-air media. The County's Facilities Implementation Group (FIG) Air Quality Sub-committee recommended that the program be conducted with a focused scope once every three years based on their conclusion that the non-air media affects the public more directly than the air media. The 2nd operational phase monitoring sampling event was conducted by ENSR in 2001, approximately 6 years after the RRF became operational. The 3rd operational phase monitoring event was conducted by ENSR in 2004, approximately 9 years after the RRF became operational.

The 1st operational phase of the program (1996-98) provided data for target chemicals in the same environmental media as the pre-operational program (1994-95). Based on the recommendations of the FIG Air Quality Sub-committee, the 2nd and 3rd operational phase sampling programs (2001 and 2004, respectively) targeted specific environmental media of potential concern. These media included fish tissue from two trophic levels of fish, water, hay, and cow's milk. This current scope of work has been prepared to provide a summary of the proposed 4th operational phase monitoring sampling effort. This 4th sampling event is scheduled for June 2007, approximately 12 years after the RRF became operational. The 4th operational phase sampling event will be conducted in order to provide analytical data for trend analysis relative to existing pre-operational and operational phase data.

2.0 Scope of Work Summary

The target locations and media for the 2007 sampling event will be consistent with those sampled in 2001 and 2004 to the extent possible. Prior to the initiation of the field operation, Montgomery County personnel will visit the surrounding areas for the purpose of confirming the availability and accessibility of the pre-selected sites for the proposed non-air media sampling work. If any locations are no longer available for sampling, appropriate alternate sites will be selected by Montgomery County and ENSR personnel.

In June 2007, experienced ENSR field technicians will visit the selected sites and collect samples. The primary objective of this sampling program will be to obtain measurements of certain target compounds in the environmental media representative of aquatic and terrestrial food chains. The target media selected for the 2007 non-air media sampling effort are as follows:

- Herbaceous crops (hay),
- Cow's milk,
- Surface water from farm ponds,
- Sediment from farm ponds, and
- Fish in the farm ponds.

These target media are similar to those sampled in the 2001 and 2004 sampling events.

The locations of the samples will be as follows:

- Hay – Lermond Farm, Johnson Dairy Farm, and the McKenny Farm (background location in Lucketts).
- Cow's Milk - Johnson Dairy Farm.
- Water, fish, and sediment – Evan's Pond ("Pond 2"), Lermond Pond ("Pond 3") and Site 2 Pond ("Pond 5").

These locations are consistent with the 2004 sampling program and facilitate continuing trend analysis. The locations are discussed further below.

Sediment has been added to the monitoring program for 2007. Pond sediment had been sampled in the pre-operational and 1st operational monitoring programs and has been added for the 2007 program.

2.1 Analytical Program

The target compounds selected for laboratory analysis in all media (surface water, sediment, fish tissue, cow's milk, and hay) are the same as those selected in the 2001 and 2004 programs. These include dioxins/furans (PCDD/PCDF) and the following trace metals: arsenic, beryllium, cadmium, chromium, lead, mercury, and nickel. Consistent with the 2004 sampling program, the metals analysis will be conducted by Katahdin Analytical Services in Scarborough, ME and the dioxins/furans analysis will be conducted by Axys Analytical Services in Sidney, British Columbia. A summary of the method detection limits (MDLs) provided by the laboratories are listed in Table 1. The proposed MDLs for the 2007 sampling event are comparable or lower than those achieved during the 2001 and 2004 sampling events. A summary of the total number of samples to be collected in each medium is provided in Table 2.

The analytical quality assurance/quality control (QA/QC) program for metals will include one matrix spike/matrix spike duplicate (MS/MSD) per matrix for metals; dioxins/furans do not require MS/MSD.

2.2 Sampling Matrices

The following text provides a brief summary of the proposed sampling effort.

2.2.1 Crops (Hay)

Five herbaceous crop material (hay) samples will be collected from three discrete sampling areas for chemical analysis and trend analysis. Two samples will be collected from Lermond Farm and two from Johnson Dairy Farm, and the fifth sample from the McKenny Farm. Lermond Farm is located near the projected maximum wet deposition area and McKenny Farm is the background sampling location in Lucketts which serves as a control site. Hay will also be sampled at the Johnson Dairy Farm, the location of the milk samples, consistent with the 2004 program to facilitate trend analysis.

Hay samples will be collected by hand using disposable surgical gloves and a decontaminated stainless steel knife. The knife will be decontaminated prior to use at each sample location.

Following sample collection, the herbaceous plant material samples will be wrapped in hexane rinsed aluminum foil, placed in plastic sealable bags, preserved with dry-ice to 0°C, and shipped overnight to the analytical laboratory in accordance with standard chain-of-custody procedures.

2.2.2 Cow's Milk

Two cow's milk samples will be collected at the Johnson Dairy Farm which is the dairy farm closest to the RRF. Milk samples will be collected directly from the milk collection/mixer tank and placed into laboratory-cleaned glass sample bottles.

The bottles will be preserved with dry-ice to 0°C, and shipped overnight to the analytical laboratory in accordance with standard chain-of-custody procedures.

2.2.3 Farm-Pond Surface Water

Two surface water samples will be collected from each of the three farm ponds identified above for the inorganic and organic constituent trend analysis. Surface water samples will be collected by immersing the capped bottle slowly into the water to just below the surface, removing the cap underwater, and then slowly lifting the bottle (full of water) out of the water without disturbing the stream bottom sediment. Bottles containing preservative (i.e., bottles for total metals analysis containing nitric acid (HNO₃)) will not be immersed in the water. Preserved sample bottles will be filled by decanting water from the un-preserved bottles. Filtering for dissolved metals analysis will be performed at the laboratory.

Water quality parameters to be measured in the field include temperature, specific conductivity, dissolved oxygen, and pH. Field parameters will be measured by submerging the instrument probe in surface water, and recording the measurements after stabilization. Visual observations including color and turbidity will also be recorded in the field logbook.

The surface water sampling bottles will be preserved with ice to 4°C, and shipped overnight to the analytical laboratory in accordance with standard chain-of-custody procedures.

2.2.4 Farm-Pond Fish

Fish tissue samples will be collected from the farm pond immediately following the surface water sampling effort. Prior to the collection of any organism, a scientific collection permit is required to be obtained from the Maryland Department of Natural Resources (MDNR). ENSR has submitted the application to obtain the permit and MDNR has confirmed the permit will be issued no later than June 1, 2007. Fish tissue samples for chemical analysis will consist of adult whole-body and fillet samples for all target species. If sufficient biomass is available, no compositing of tissue will take place (i.e., each sample will consist of an individual organism). However, if compositing of samples is necessary, the composite samples will consist of the same species of similar age or size class. The number of individual organisms per composite sample will be dependent upon species and sizes of target biota collected, laboratory analytical requirements, and the distribution and relative abundance of the target organisms. Fish tissue results from this program will be compared to fish tissue data collected during the previous sampling programs to determine if there is any evidence of bioaccumulation of the target chemicals in fish.

Detailed field notes will be maintained to document the tissue sampling program. A field technician will maintain field logbooks, and sampling events will be detailed on standard sample collection forms, which will include the client, site name, a unique sample identification number, sampling location, species, number of organisms per sub-sample, physical characteristics of the sampling station, length and weight of the organism sampled, date and time, and names of field personnel.

Fish samples will be collected using standard techniques. The preferred method will be pole and line. If pole and line is not successful, back-up techniques will include electro-shocking, dip netting, seine netting and gill nets. Captured fish will be keyed to species. If any given catch contains an excess amount of individuals of similar size, a subset of a similar size class will be retained for tissue analysis. The subset of fish will be selected without bias by choosing individuals randomly (i.e., selected by number using a random number table generated prior to the field effort). The remaining catch will be released after weight and length measurements have been recorded. Any grossly deformed specimens will be photographed, preserved, and retained in a voucher collection. To determine the age of fish, scales will be collected from all fish used for tissue analysis.

The following target species have been selected for fish tissue analysis, but may be subject to change dependent upon species availability:

- Largemouth bass (*Micropterus salmoides*)
- Bluegill sunfish (*Lepomis macrochirus*)

Largemouth bass were selected to represent higher trophic level predator fish and bluegill sunfish were selected to represent primary consumer lower trophic level fish. These target species were selected for analysis because they: (1) are known to occur in adequate numbers in the man-made farm ponds, (2) represent fish of significant recreational value in the region, (3) represent typical predator and prey fish species, and (4) were collected from these ponds during prior sampling events. Collecting the same species from each pond throughout the monitoring program permits trend analysis evaluation of the fish tissue burden data.

From each of the three ponds and for each of the two species, two whole-body and two fish fillets (edible muscle tissue) will be analyzed under this program, for a total of 12 whole-body and 12 fillet samples. Skinless, boneless fish fillets will consist of the edible muscle tissue from head to tail beginning at the mid-dorsal fin from the right or left side of each fish. Depending on the size of the fish and the quantity of tissue required for analysis, one or both fillets may be required per sample. If sufficient biomass is available in an individual fish, the right fillet will be used for the fillet analysis and the remainder of the fish will be the whole body sample. This methodology will reduce the quantity of organisms required to be sacrificed for this

program. All fish filleting and other preparation will be done in the analytical laboratory under laboratory conditions (i.e., filleting will not be performed in the field).

Following collection, all target organism tissue samples will be wrapped in hexane rinsed aluminum foil, placed in plastic sealable bags, preserved with dry-ice to 0°C, and shipped overnight to the analytical laboratory in accordance with standard ENSR chain-of-custody procedures (ENSR SOP 1007; see Appendix A).

2.2.5 Farm-Pond Sediment

Two sediment samples will be collected from each of the three farm ponds for the target inorganic and organic constituents. Sediment will be collected after surface water and fish sampling is completed to minimize disturbance of water and fish sampling. Sediment sampling equipment will be decontaminated prior to use at each sample location.

Where sediment conditions permit, samples will be collected using a pole-mounted Ekman dredge. Should resistance be encountered (i.e., vegetation or debris), a Teflon®-coated stainless steel trowel or spoon will be used to sample sediment. The dredge is preferred since it minimizes disturbance of the fine sediment material located at the very surface of the sediment. Samples will be collected from the top few inches (not to exceed 4 inches) of sediment in order to sample from the biologically active zone and to ensure the sample is comprised primarily of the most recently deposited sediments. Sediment will be transferred to a glass bowl and homogenized prior to sub-sampling into bottles. Color, texture, odor, and other physical features will be noted.

The sediment sampling bottles will be preserved with ice to 4°C, and shipped overnight to the analytical laboratory in accordance with standard chain-of-custody procedures.

Sediment results from this program will be compared to sediment data collected during the pre-operational and 1st operational sampling programs for trend analysis.

**Table 2-1: Detection Limits for Metals and Dioxins/Furans In Comparison to Previously Achieved Detection Limits
Montgomery County Non-Air Media Sampling Program 2007**

Dioxins and Furans	Detection Limits Achieved in 2001/2004 [a]			Target Detection Limits Provided by Laboratory for 2007		
	Water (pg/L)	Milk (pg/L)	Hay/Fish Tissue (ng/kg)	Water (pg/L)	Milk (pg/L)	Hay/Fish Tissue/Sediment (ng/kg)
2,3,7,8-TCDF	0.4	12.5	0.1	0.5	5	0.05
2,3,7,8-TCDD	0.4	12.5	0.1	0.5	5	0.05
1,2,3,7,8-PeCDF	1	12.5	0.1	0.5	5	0.05
2,3,4,7,8-PeCDF	1	12.5	0.1	0.5	5	0.05
1,2,3,7,8-PeCDD	0.57	12.5	0.1	0.5	5	0.05
1,2,3,4,7,8-HxCDF	1	11	0.068	0.5	5	0.05
1,2,3,6,7,8-HxCDF	1	12	0.07	0.5	5	0.05
1,2,3,7,8,9-HxCDF	0.67	12.5	0.086	0.5	5	0.05
2,3,4,6,7,8-HxCDF	0.67	12.5	0.094	0.5	5	0.05
1,2,3,4,7,8-HxCDD	0.58	12.5	0.1	0.5	5	0.05
1,2,3,6,7,8-HxCDD	0.6	27	0.1	0.5	5	0.05
1,2,3,7,8,9-HxCDD	0.56	13.4	0.1	0.5	5	0.05
1,2,3,4,6,7,8-HpCDF	1	13.9	0.094	1	10	0.1
1,2,3,4,7,8,9-HpCDF	1	12.5	0.1	1	10	0.1
1,2,3,4,6,7,8-HpCDD	3.03	93.1	0.1	1	10	0.1
OCDF	1	12.5	0.1	1	10	0.1
OCDD	71.1	119	0.161	1	10	0.1
Metals	Detection Limits Achieved in 2001/2004 [a]			Target Detection Limits Provided by Laboratory for 2007		
	Water (mg/L)	Milk (mg/L)	Hay/Fish Tissue (mg/kg)	Water (mg/L)	Milk (mg/L)	Hay/Fish Tissue/Sediment (mg/kg)
Arsenic	0.0006	0.006	0.04	0.0005	0.005	0.05
Beryllium	0.0001	0.001	0.01	0.00002	0.0002	0.002
Cadmium	0.00005	0.001	0.01	0.00001	0.0001	0.001
Chromium	0.0004	0.004	0.3	0.00016	0.0016	0.16
Lead	0.00023	0.003	0.01	0.000036	0.00036	0.036
Mercury	0.00001	0.00008	0.0095	0.00001	0.0001	0.001
Nickel	0.0008	0.0172	0.03	0.00005	0.0005	0.005

Dioxins/Furans - EPA Method 1613

Metals except mercury - EPA Method 200.8/6020 (ICP-MS)

Mercury - SW-846 CVAA

[a] Lowest detection limit or detected concentration from 2001 and 2004 sampling events presented.

**Table 2-2: Number of Samples for 4th Operational Phase Sampling Event
Montgomery County RRF Non-Air Media Monitoring Program – Spring 2007**

Total Samples	Number of			
	Regular Samples	Duplicates	Blanks	Samples (Total)
Surface Water				
Metals - Total recoverable	6	1	0	7
Metals - Dissolved	6	1	0	7
Metals MS/MSD - Total recoverable	1	--	--	1
Metals MS/MSD - Dissolved	1	--	--	1
Hardness - Total recoverable	6	0	0	6
Hardness - Dissolved	6	0	0	6
PCDD/PCDF	6	0	0	6
Sediment				
Metals	6	1	1	8
Metals MS/MSD	1	--	--	1
Total Organic Carbon	6	0	0	6
PCDD/PCDF	6	1	1	8
Milk				
Metals	2	1	0	3
Metals MS/MSD	1	--	--	1
Lipids	2	0	0	2
PCDD/PCDF	2	0	1	3
Hay				
Metals	5	1	0	6
Metals MS/MSD	1	--	--	1
Lipids	5	0	0	5
PCDD/PCDF	5	0	1	6
Fish Whole				
Fish prep	12	1	0	13
Metals	12	1	0	13
Metals MS/MSD	1	--	--	1
Lipids	12	0	0	12
PCDD/PCDF	12	0	0	12
Fish Fillet				
Fish prep	12	1	0	13
Metals	12	1	0	13
Metals MS/MSD	1	0	0	1
Lipids	12	0	0	12
PCDD/PCDF	12	0	0	12

Assumptions:

Two surface water samples per pond; three ponds.

Two cow's milk samples from one farm.

Three farms sampled for hay; two site hay samples per farm, plus one sample from one background location.

Two fish species per pond (largemouth bass and sunfish)

Three ponds sampled for fish.

Two types of sample (fillet and whole body) per fish sample.

3.0 Reporting

A draft report will be prepared and submitted to the County within 5 months of the sample collection date. The report will include analysis of the data collected during the program as well as the data from other operational programs and the pre-operational program to determine if any trends are evident (e.g., bioaccumulation of chemicals in fish). In addition, the report will include evaluation of the data relative to published values and available guidance values. The report format will be consistent with the previous report developed by ENSR for the 2004 program. ENSR will incorporate comments provided by the County on the draft and finalize the document.

SOP NUMBER: 1007

Chain-of-Custody Procedures

Date: 4th Qtr. 1994

Revision Number: 1

Author: Scott Whittemore

Discipline: All

1.0 PURPOSE AND APPLICABILITY

This standard operating procedure (SOP) describes chain-of-custody procedures applicable to ENSR sampling and analysis programs.

2.0 RESPONSIBILITIES

- 2.1** The project manager is responsible for ensuring that appropriate chain-of-custody procedures are addressed in the project-specific quality assurance plan (QAPP), and for providing the project team with the materials, resources and guidance necessary to effect proper chain-of-custody procedures.
- 2.2** The project manager, sampling team leader, or designee is responsible for assigning an individual to serve as sample custodian until samples are transferred to the laboratories, and for supervising the implementation of chain-of-custody procedures in accordance with SOP and the applicable QAPP.
- 2.3** It is the responsibility of the laboratory manager to assign a qualified individual to serve as laboratory sample custodian. The laboratory manager is responsible for ensuring that chain-of-custody procedures are implemented in the laboratory in accordance with the laboratory's SOP and the applicable QAPP.
- 2.4** The sample custodian is responsible for implementing the chain-of-custody procedures in accordance with SOP and the applicable QAPP.

3.0 REQUIRED MATERIALS

- Chain-of-Custody/Analysis Request Form
- Sample Labels
- Chain-of-Custody tape

4.0 METHOD

4.1 Definitions

4.1.1 Sample Custodian - Person designated as responsible for the receipt and custody of samples received by the laboratory for analysis.

4.1.2 Chain-of-Custody - The National Enforcement Investigations Center (NEIC) of EPA defines custody of evidence in the following manner:

- it is in your actual possession;
- it is in your view, after being in your physical possession;
- it was in your possession and then you locked or sealed it up to prevent tampering; or
- it is in a secure area.

Samples are physical evidence and should be handled according to certain procedural safeguards described in Section 8 of this SOP.

4.1.3 The field sample custodian or sampler must complete a Chain-of-Custody form (COC) ([Figures 1](#) and [2](#) or equivalent).

4.1.4 In most cases, the chain-of-custody procedure is initiated in the field as the samples are collected.

4.1.5 Some measurement methods require preparation of sample collection media or special treatment of sample containers prior to sample collection. In these cases, chain-of-custody procedures should be initiated with the media preparation or container treatment. This requires that sample identification numbers or media/container identification numbers be assigned. These must be entered on the chain-of-custody form, leaving room for the subsequent recording of the associated sample numbers. In this variation, the custodian responsible for media preparation or container treatment has the responsibilities outlined in 4.3, below, and the sampler or field sample custodian has the responsibilities in 4.4, below when he or she receives the prepared media or treated containers. There are a number of acceptable approaches to this variation, and the detailed procedures should be defined in the project-specific QAPP.

4.2 The sample custodian is responsible for documentation of sample custody.

4.2.1 The field sample custodian or sampler is required to complete the following information:

- Project Number
- Client or Project Name
- Project Location

- Field Sample Identification Number
- Date and Time of Sample Collection
- Sample Matrix
- Preservative
- Analysis Requested
- Sampler's Signature
- Signature of Person Relinquishing Sample Custody (Field Sample Custodian)
- Date and Time Relinquished
- Sampler Remarks
- Chain-of-Custody Tape Number

4.2.2 The COC must be filled out completely and legibly. Corrections will be made, if necessary, by drawing a single line through and initialing and dating the error. The correct information is then recorded with indelible ink. All transfers from field personnel to laboratory personnel are recorded on the chain-of-custody form in the "relinquished by" and "received by" sections.

4.2.3 If samples are to be shipped, the field sample custodian must complete a chain-of-custody form for each package of samples and place a copy of each completed form inside the associated package before the package is sealed. Each completed chain-of-custody form must accurately list the sample identification numbers of the samples with which it is packaged, and must contain the identification number of the chain-of-custody seal on the package.

4.2.4 If samples are hand carried to a laboratory, the person hand carrying the samples is the sample custodian. If the carrier is a different person than the one who filled out the chain-of-custody form and packaged the samples, then that person must transfer custody to the carrier by signing and dating each form in the "Relinquished By" section. The carrier must then sign and date each form in the adjacent "Received By" section. When the carrier transfers the samples to the laboratory, he or she must sign and date each form in the next "Relinquished By" section, and the laboratory sample custodian must sign and date each form in the adjacent "received By" section.

4.3 Sample Receipt and Inspection

4.3.1 Upon sample receipt, the coolers or packages are inspected for general condition and the condition of the COC tape. The coolers or boxes are then opened and each sample is inspected for damage.

4.3.2 Sample containers are removed from packing material and sample label field identification numbers are verified against the COC form.

4.3.3 The following information is recorded in the laboratory's records:

- Airbill Number
- Presence/absence of COC forms and custody tape
- Condition of samples
- Discrepancies noted
- Holding time and preservatives
- Sample storage location

4.3.4 The Chain-of-Custody form is completed by signing and recording the date and time of receipt.

5.0 QUALITY CONTROL

5.1 The records generated in this procedure are subject to senior review in accordance with ENSR's senior review procedures.

5.2 The records generated in this procedure will become a part of the evidence reviewed in the data validation process (see ENSR SOP 1009).

6.0 DOCUMENTATION

The records generated in this procedure will become part of the permanent record supporting the associated measurements. Copies of these records will be retained in the applicable project files, and in the files of the laboratories who have performed the sample analyses.

7.0 REFERENCES

None.

Figure 1. Chain of Custody Form

M901376

ENSR

CHAIN OF CUSTODY RECORD

Page ____ of ____

Client/Project Name:

Project Location:

Project Number:

Field Logbook No.:

Sampler: (Print Name) /Affiliation:

Chain of Custody Tape No.:

Signature:

Send Results/Report to:

Field Sample No./ Identification	Date	Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	Field Filtered	Analysis Requested										Lab I.D.	Remarks

Relinquished by: (Print Name)

Signature:

Date:

Time:

Received by: (Print Name)

Signature:

Date:

Time:

Relinquished by: (Print Name)

Signature:

Date:

Time:

Received by: (Print Name)

Signature:

Date:

Time:

Relinquished by: (Print Name)

Signature:

Date:

Time:

Received by: (Print Name)

Signature:

Date:

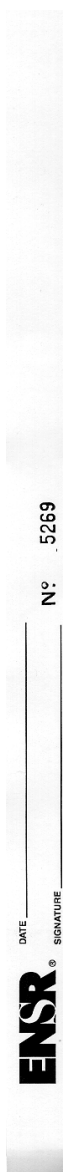
Time:

Analytical Laboratory (Destination):

ENSR
4303 W. LaPorte Ave.
Fort Collins, CO 80521
(970) 416-0916

Serial No.

Figure 2. Chain of Custody Tape



Appendix C

Scientific collection permit, state of Maryland



Martin O'Malley, Governor
John R. Griffin, Secretary

Fisheries Service

May 14, 2007

Kristen Durocher
ENSR Consulting and Engineering
7041 Old Wake Forest Rd., Suite 103
Raleigh NC 27616

Dear Kristen:

Enclosed is your 2007 Scientific Collection Permit. Your permit number is SCP200778 and expires December 31, 2007. Collectors must possess the permit while sampling. This permit authorizes you to sample fish at certain locations, it does not authorize you to trespass. You must obtain permission prior to sampling on Federal, State, County and private property. A copy of your permit has been forwarded to the Natural Resources Police.

A report of all activity conducted under SCP200778 is due by January 31, 2008. For each date of activity the report should include the following information: date, location sampled, number of passes, number caught by species and the disposition of the catch.

Please contact me by phone (410) 260-8317, fax (410) 260-8279, or e-mail (rbohn@dnr.state.md.us) if you have any questions.

Sincerely,

Richard Bohn
Permit Coordinator

Enclosure



MARYLAND DEPARTMENT OF NATURAL RESOURCES

FISHERIES SERVICE

SCIENTIFIC COLLECTION PERMIT

1. PERMITTEE ENSR CONSULTING AND ENGINEERING 7041 OLD WAKE FOREST RD., SUITE 103 RALEIGH NC 27616	2. PERMIT NUMBER SCP200778	
	3. EFFECTIVE 05-14-2007	4. EXPIRES 12-31-2007
	5. PHONE 919-872-6600 x287 (WORK) E-MAIL kdurocher@ensr.aecom.com	
6. NAME AND TITLE OF PRINCIPAL OFFICER KRISTEN DUROCHER, ECOLOGIST		
7. CONDITIONS AND AUTHORIZATIONS: A. THE ANNOTATED CODE OF MARYLAND, §4-212, STATES THAT THE SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES MAY GRANT CERTIFICATES TO ACCREDITED PERSONS OF SCIENTIFIC INSTITUTIONS TO PERMIT THEM TO COLLECT FISH, FISH EGGS, CRUSTACEANS, AND MOLLUSKS FOR SCIENTIFIC PURPOSES. THE CONDITIONS IN STATE LAW AND REGULATIONS ARE HEREBY MADE A PART OF THIS PERMIT. ALL ACTIVITIES AUTHORIZED HEREIN MUST BE CARRIED OUT IN ACCORD WITH AND FOR THE PURPOSES DESCRIBED IN THE APPLICATION SUBMITTED. CONTINUED VALIDITY, OR RENEWAL, OF THIS PERMIT IS SUBJECT TO COMPLETE AND TIMELY COMPLIANCE WITH ALL APPLICABLE CONDITIONS, INCLUDING THE FILING OF ALL REQUIRED INFORMATION AND REPORTS. B. THE VALIDITY OF THIS PERMIT IS ALSO CONDITIONED UPON STRICT OBSERVANCE OF ALL APPLICABLE FOREIGN, FEDERAL, LOCAL OR OTHER STATE LAWS. C. YOU MUST REPORT THE COLLECTION OF ANY MARKED FISH TO THE APPROPRIATE FRESHWATER FISHERIES REGIONAL MANAGER. MARKINGS MAY INCLUDE, FIN CLIPS, STREAMER OR FLOY TAGS, ETC. THIS INFORMATION IS REQUIRED SINCE THE REGIONAL MANAGERS PERIODICALLY CONDUCT MARK-RECAPTURE POPULATION SURVEYS IN AREA RIVERS AND STREAMS. D. YOU MUST CONTACT THE DEPARTMENT OF NATURAL RESOURCES POLICE AT (410) 260-8940 TO LET THEM KNOW WHEN YOU WILL BE OPERATING IN MARYLAND WATERS. THIS ELIMINATES THE NECESSITY OF CONFIRMING ANY CALLS RELATED TO YOUR COLLECTION ACTIVITIES. E. THIS PERMIT DOES NOT AUTHORIZE THE COLLECTION, SALVAGE, POSSESSION OR TRANSPORTATION OF ANY SPECIES CLASSIFIED AS THREATENED OR ENDANGERED AT THE STATE OR FEDERAL LEVEL (EXCEPT AS LISTED BELOW). F. PROJECT DESCRIPTION: COLLECTION OF FISH FOR CHEMICAL ANALYSIS TO ASSESS IMPACT OF EMISSIONS FROM THE MONTGOMERY COUNTY SOLID WASTE RESOURCE RECOVERY FACILITY. COLLECTION IS PERMITTED OF UP TO 10 LARGEMOUTH BASS AND 50 BLUEGILL SUNFISH; UP TO 20 OF ANY OTHER (NON-ENDANGERED) SPECIES MAY BE COLLECTED IF NECESSARY. G. RESTRICTIONS FOR CLASS III NATURAL TROUT WATERS: YOU MUST APPLY FOR ADDITIONAL WRITTEN PERMISSION TO SAMPLE FROM CLASS III WATERS OR USE ELECTROFISHING GEAR OUTSIDE THE PERMITTED AREA IDENTIFIED BELOW. CONTACT REGIONAL FISHERY MANAGER CHARLIE GOUGEON AT 410-442-2080 OR AT CGOUGEON@DNR.STATE.MD.US A MINIMUM OF TWO WEEKS BEFORE YOU WISH TO SAMPLE OR COLLECT FROM OTHER AREAS. H. ALL FISH HELD IN CAPTIVITY MUST BE SACRIFICED . DO NOT RETURN TO STATE WATERS. I. GILL NET RESTRICTIONS: GILL NETS ARE NOT PERMITTED TO BE SET FOR MORE THAN TWO (2) HOURS. J. SAMPLING AND COLLECTION OF FISH USING ELECTROFISHING GEAR, GILL NETS AND HOOK-AND-LINE IS PERMITTED ACCORDING TO SECTIONS 7A-1 (SEE ABOVE) IN BUCHANAN POND, LANDFILL POND, YATES POND AND LERMOND POND IN MONTGOMERY COUNTY FOR THE PURPOSES OF CHEMICAL ANALYSIS. K. SPECIES COLLECTED AND/OR HELD UNDER THIS PERMIT ARE NOT PERMITTED FOR PERSONAL CONSUMPTION OR SALE.		
8. LIST OF COLLECTORS IN ADDITION TO PRINCIPAL OFFICER (each collector must carry a copy of this permit) TAREQ ADHAM JIM BERG		
9. REPORTING REQUIREMENTS: SUMMARY REPORT OF PERMIT ACTIVITY DUE BY JANUARY 31, 2008		
ISSUED BY <i>Richard Bohm</i> PERMIT COORDINATOR 410-260-8317		ISSUED 05-14-2007

Appendix D

Lab analytical data

CLIENT ID	EFSW02AA	SLSW01AA	SLSW02AA	AJM01AC	LFSD01AC	LFSW01AA	LFSW02AA	EFSW01AA
AXYS ID	L10044-1	L10044-2	L10044-3	L10044-4 (A)	L10044-5	L10044-6	L10044-7	L10044-8
WORKGROUP	WG22544	WG22544	WG22544	WG22544	WG22544	WG22544	WG22544	WG22544
Sample Size	0.968 L	0.944 L	0.924 L	0.878 L	0.809 L	0.960 L	0.983 L	0.934 L
UNITS	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L	pg/L
2,3,7,8-TCDD	< 0.517	< 0.530	K 0.582	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,7,8-PeCDD	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,4,7,8-HxCDD	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,6,7,8-HxCDD	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,7,8,9-HxCDD	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,4,6,7,8-HpCDD	10.9	8.43	3.55	0.868	K 0.996	3.18	K 2.68	7.91
OCDD	460	499	118	K 1.57	2.73	96.9	90	396
2,3,7,8-TCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,7,8-PeCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
2,3,4,7,8-PeCDF	0.586	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,4,7,8-HxCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,6,7,8-HxCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,7,8,9-HxCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
2,3,4,6,7,8-HxCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,4,6,7,8-HpCDF	K 0.826	< 0.530	K 0.616	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
1,2,3,4,7,8,9-HpCDF	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
OCDF	1.84	1.02	K 1.10	< 0.570	0.959	0.74	0.653	K 1.04
Total Tetra-Dioxins	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
Total Penta-Dioxins	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
Total Hexa-Dioxins	1.13	1.9	1.44	< 0.570	< 0.618	0.696	0.516	2
Total Hepta-Dioxins	28.1	20.3	7.68	1.45	< 0.618	8.46	< 0.508	19.7
Total Tetra-Furans	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
Total Penta-Furans	0.586	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
Total Hexa-Furans	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
Total Hepta-Furans	< 0.517	< 0.530	< 0.541	< 0.570	< 0.618	< 0.521	< 0.508	< 0.536
TEQ (WHO 1998) ND=0	0.448	0.134	0.0473	0.00868	0.000369	0.0416	0.00907	0.119
TEQ (WHO 1998) ND=1/2DL	1.19	1.03	0.959	0.969	1.04	0.919	0.868	1.02
TEQ (WHO 2005) ND=0	0.423	0.234	0.0709	0.00868	0.00111	0.0611	0.0272	0.198
TEQ (WHO 2005) ND=1/2DL	1.16	1.07	0.923	0.907	0.978	0.882	0.83	1.04

CLIENT ID	Lab Blank	Spiked Matrix	AJM01AC (Duplicate)
AXYS ID	WG22544-101	WG22544-102	WG22544-103 (DUP L10044-4)
WORKGROUP	WG22544	WG22544	WG22544
Sample Size	1.00 L		0.888 L
UNITS	pg/L	% Recov	pg/L
2,3,7,8-TCDD	< 0.500	101	< 0.563
1,2,3,7,8-PeCDD	< 0.500	100	< 0.563
1,2,3,4,7,8-HxCDD	< 0.500	98.3	< 0.563
1,2,3,6,7,8-HxCDD	< 0.500	99.4	< 0.563
1,2,3,7,8,9-HxCDD	< 0.500	97.2	< 0.563
1,2,3,4,6,7,8-HpCDD	K 0.599	93.8	0.805
OCDD	1.18	93.2	1.31
2,3,7,8-TCDF	< 0.500	100	< 0.563
1,2,3,7,8-PeCDF	< 0.500	92.9	< 0.563
2,3,4,7,8-PeCDF	< 0.500	92.3	< 0.563
1,2,3,4,7,8-HxCDF	< 0.500	98.3	< 0.563
1,2,3,6,7,8-HxCDF	< 0.500	99.3	< 0.563
1,2,3,7,8,9-HxCDF	< 0.500	99.6	< 0.563
2,3,4,6,7,8-HxCDF	< 0.500	97.8	< 0.563
1,2,3,4,6,7,8-HpCDF	< 0.500	102	< 0.563
1,2,3,4,7,8,9-HpCDF	< 0.500	97.6	< 0.563
OCDF	< 0.500	88.4	0.736
Total Tetra-Dioxins	< 0.500		< 0.563
Total Penta-Dioxins	< 0.500		< 0.563
Total Hexa-Dioxins	< 0.500		< 0.563
Total Hepta-Dioxins	< 0.500		0.805
Total Tetra-Furans	< 0.500		< 0.563
Total Penta-Furans	< 0.500		< 0.563
Total Hexa-Furans	< 0.500		< 0.563
Total Hepta-Furans	< 0.500		< 0.563
TEQ (WHO 1998) ND=0	0.000118		0.00825
TEQ (WHO 1998) ND=1/2DL	0.845		0.957
TEQ (WHO 2005) ND=0	0.000354		0.00866
TEQ (WHO 2005) ND=1/2DL	0.79		0.895

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

K	=	peak detected but did not meet quantification criteria number following this flag represents the estimated maximum possible concentration
<	=	less than the detection limit number following this symbol represents the detection limit For homologue totals sums, please see the individual congener data for the detection limit.

There may be additional flags associated with these data; please see individual hard copy reports for a complete list of flags and definitions.

CLIENT ID	LFBG01AAW	LFBG02AAW	EFBG01AAW	SLBG02AAW
AXYS ID	L10071-11	L10071-13	L10071-15	L10071-17
WORKGROUP	WG22555	WG22555	WG22555	WG22555
Sample Size	10.1 g (wet)	10.3 g (wet)	10.2 g (wet)	10.0 g (wet)
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)
2,3,7,8-TCDD	K 0.143	K 0.080	0.193	0.379
1,2,3,7,8-PeCDD	K 0.093	K 0.057	0.058	K 0.062
1,2,3,4,7,8-HxCDD	K 0.086	< 0.0487	< 0.0489	< 0.0500
1,2,3,6,7,8-HxCDD	K 0.160	K 0.077	K 0.096	0.079
1,2,3,7,8,9-HxCDD	K 0.050	< 0.0487	K 0.052	< 0.0500
1,2,3,4,6,7,8-HpCDD	K 0.490	0.328	0.476	0.408
OCDD	5.89	5.18	9.71	10.6
2,3,7,8-TCDF	0.231	0.121	0.116	0.184
1,2,3,7,8-PeCDF	< 0.0497	K 0.053	< 0.0489	< 0.0500
2,3,4,7,8-PeCDF	0.067	< 0.0487	< 0.0489	< 0.0500
1,2,3,4,7,8-HxCDF	K 0.050	< 0.0487	< 0.0489	< 0.0500
1,2,3,6,7,8-HxCDF	< 0.0497	< 0.0487	< 0.0489	< 0.0500
1,2,3,7,8,9-HxCDF	< 0.0497	< 0.0487	< 0.0489	< 0.0500
2,3,4,6,7,8-HxCDF	< 0.0497	< 0.0487	< 0.0489	< 0.0500
1,2,3,4,6,7,8-HpCDF	< 0.0497	< 0.0487	< 0.0489	< 0.0500
1,2,3,4,7,8,9-HpCDF	< 0.0497	< 0.0487	< 0.0489	< 0.0500
OCDF	0.053	< 0.0487	K 0.066	< 0.0500
Total Tetra-Dioxins	< 0.0497	< 0.0487	0.193	0.379
Total Penta-Dioxins	< 0.0497	< 0.0487	0.058	< 0.0500
Total Hexa-Dioxins	< 0.0497	< 0.0487	0.088	0.141
Total Hepta-Dioxins	0.92	0.577	0.476	0.86
Total Tetra-Furans	0.281	0.121	0.116	0.184
Total Penta-Furans	0.355	< 0.0487	< 0.0489	< 0.0500
Total Hexa-Furans	< 0.0497	< 0.0487	< 0.0489	< 0.0500
Total Hepta-Furans	< 0.0497	< 0.0487	< 0.0489	< 0.0500
2,3,7,8-TCDF (C)	< 0.114	< 0.0799	< 0.110	K 0.163
TEQ (WHO 1998) ND=0	0.0341	0.0038	0.257	0.392
TEQ (WHO 1998) ND=1/2DL	0.109	0.0874	0.293	0.451
TEQ (WHO 2005) ND=0	0.0219	0.00483	0.259	0.394
TEQ (WHO 2005) ND=1/2DL	0.0962	0.0831	0.29	0.448
% Lipid	3.13	1.37	2.69	3.66

CLIENT ID	EFBG02AAW	SLLMB01AAF	SLLMB01AAW	SLLMB02AAF
AXYS ID	L10071-19	L10071-20	L10071-21	L10071-22
WORKGROUP	WG22555	WG22555	WG22555	WG22555
Sample Size	10.1 g (wet)	10.0 g (wet)	10.3 g (wet)	10.1 g (wet)
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)
2,3,7,8-TCDD	K 0.088	0.183	0.387	K 0.099
1,2,3,7,8-PeCDD	K 0.073	K 0.053	0.106	< 0.0493
1,2,3,4,7,8-HxCDD	< 0.0494	< 0.0500	< 0.0484	K 0.053
1,2,3,6,7,8-HxCDD	0.053	< 0.0500	0.088	< 0.0493
1,2,3,7,8,9-HxCDD	< 0.0494	< 0.0500	< 0.0484	< 0.0493
1,2,3,4,6,7,8-HpCDD	0.47	K 0.079	0.252	0.102
OCDD	13.7	0.533	3.43	K 0.438
2,3,7,8-TCDF	0.093	K 0.056	0.1	< 0.0493
1,2,3,7,8-PeCDF	< 0.0494	< 0.0500	< 0.0484	< 0.0493
2,3,4,7,8-PeCDF	< 0.0494	< 0.0500	0.064	K 0.056
1,2,3,4,7,8-HxCDF	< 0.0494	< 0.0500	< 0.0484	K 0.061
1,2,3,6,7,8-HxCDF	< 0.0494	< 0.0500	< 0.0484	< 0.0493
1,2,3,7,8,9-HxCDF	< 0.0494	< 0.0500	< 0.0484	< 0.0493
2,3,4,6,7,8-HxCDF	< 0.0494	< 0.0500	< 0.0484	K 0.052
1,2,3,4,6,7,8-HpCDF	< 0.0494	K 0.055	K 0.072	K 0.070
1,2,3,4,7,8,9-HpCDF	< 0.0494	< 0.0500	< 0.0484	< 0.0493
OCDF	K 0.083	K 0.075	0.062	K 0.170
Total Tetra-Dioxins	< 0.0494	0.183	0.387	< 0.0493
Total Penta-Dioxins	< 0.0494	< 0.0500	0.106	< 0.0493
Total Hexa-Dioxins	0.166	< 0.0500	0.088	< 0.0493
Total Hepta-Dioxins	1.04	0.063	0.454	0.102
Total Tetra-Furans	0.093	< 0.0500	0.167	< 0.0493
Total Penta-Furans	< 0.0494	< 0.0500	0.064	< 0.0493
Total Hexa-Furans	< 0.0494	< 0.0500	< 0.0484	< 0.0493
Total Hepta-Furans	< 0.0494	< 0.0500	0.06	< 0.0493
2,3,7,8-TCDF (C)	< 0.104	< 0.0766	< 0.0697	
TEQ (WHO 1998) ND=0	0.0114	0.183	0.537	0.00102
TEQ (WHO 1998) ND=1/2DL	0.0949	0.244	0.556	0.0841
TEQ (WHO 2005) ND=0	0.0141	0.183	0.525	0.00102
TEQ (WHO 2005) ND=1/2DL	0.0922	0.238	0.544	0.0787
% Lipid	2.21	0.35	1.44	

CLIENT ID	SLLMB02AAW	SLBG01AAF	SLBG01AAW	LFLMB01AAW
AXYS ID	L10071-23	L10071-24	L10071-25	L10071-7 (A)
WORKGROUP	WG22555	WG22555	WG22555	WG22555
Sample Size	10.1 g (wet)	10.4 g (wet)	10.5 g (wet)	10.1 g (wet)
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)
2,3,7,8-TCDD	0.416	K 0.095	0.347	K 0.134
1,2,3,7,8-PeCDD	0.053	< 0.0481	K 0.049	0.075
1,2,3,4,7,8-HxCDD	0.065	< 0.0481	< 0.0477	K 0.064
1,2,3,6,7,8-HxCDD	K 0.077	< 0.0481	0.098	K 0.068
1,2,3,7,8,9-HxCDD	K 0.083	< 0.0481	K 0.057	< 0.0494
1,2,3,4,6,7,8-HpCDD	0.279	K 0.097	0.326	K 0.239
OCDD	3.3	0.766	7.77	1.23
2,3,7,8-TCDF	0.174	< 0.0481	0.147	K 0.106
1,2,3,7,8-PeCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
2,3,4,7,8-PeCDF	K 0.076	< 0.0481	0.06	< 0.0494
1,2,3,4,7,8-HxCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
1,2,3,6,7,8-HxCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
1,2,3,7,8,9-HxCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
2,3,4,6,7,8-HxCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
1,2,3,4,6,7,8-HpCDF	K 0.051	< 0.0481	< 0.0477	< 0.0494
1,2,3,4,7,8,9-HpCDF	< 0.0495	< 0.0481	< 0.0477	< 0.0494
OCDF	K 0.078	K 0.065	K 0.062	K 0.092
Total Tetra-Dioxins	0.416	< 0.0481	0.347	< 0.0494
Total Penta-Dioxins	0.053	< 0.0481	< 0.0477	0.075
Total Hexa-Dioxins	0.344	< 0.0481	0.098	< 0.0494
Total Hepta-Dioxins	0.6	< 0.0481	0.763	< 0.0494
Total Tetra-Furans	0.174	< 0.0481	0.22	< 0.0494
Total Penta-Furans	< 0.0495	< 0.0481	0.06	< 0.0494
Total Hexa-Furans	< 0.0495	< 0.0481	< 0.0477	< 0.0494
Total Hepta-Furans	< 0.0495	< 0.0481	< 0.0477	< 0.0494
2,3,7,8-TCDF (C)	0.139		K 0.130	0.083
TEQ (WHO 1998) ND=0	0.493	0.0000766	0.391	0.0834
TEQ (WHO 1998) ND=1/2DL	0.521	0.0814	0.434	0.14
TEQ (WHO 2005) ND=0	0.493	0.00023	0.38	0.0837
TEQ (WHO 2005) ND=1/2DL	0.517	0.0762	0.423	0.135
% Lipid	2.95		2.34	1.2

CLIENT ID	LFLMB02AAW	Lab Blank	Spiked Matrix	LFLMB01AAW (Duplicate)
AXYS ID	L10071-9	WG22555-101	WG22555-102	WG22555-107 (DUP L10071-7)
WORKGROUP	WG22555	WG22555	WG22555	WG22555
Sample Size	10.6 g (wet)	10.0 g		10.2 g (wet)
UNITS	pg/g (wet weight basis)	pg/g	% Recov	pg/g (wet weight basis)
2,3,7,8-TCDD	K 0.139	K 0.050	104	K 0.146
1,2,3,7,8-PeCDD	0.112	K 0.065	100	K 0.061
1,2,3,4,7,8-HxCDD	K 0.048	< 0.0500	97.5	< 0.0530
1,2,3,6,7,8-HxCDD	K 0.071	K 0.056	100	K 0.079
1,2,3,7,8,9-HxCDD	K 0.069	0.069	96	< 0.0501
1,2,3,4,6,7,8-HpCDD	K 0.215	K 0.119	97.4	0.172
OCDD	1.02	0.512	96.7	1.45
2,3,7,8-TCDF	0.086	< 0.0500	103	K 0.129
1,2,3,7,8-PeCDF	< 0.0471	< 0.0500	98.3	< 0.0490
2,3,4,7,8-PeCDF	K 0.073	0.076	99	K 0.060
1,2,3,4,7,8-HxCDF	< 0.0471	K 0.054	96.2	< 0.0490
1,2,3,6,7,8-HxCDF	< 0.0471	K 0.050	97.2	< 0.0490
1,2,3,7,8,9-HxCDF	< 0.0471	0.053	97.4	< 0.0490
2,3,4,6,7,8-HxCDF	< 0.0471	0.057	97.8	< 0.0490
1,2,3,4,6,7,8-HpCDF	< 0.0471	< 0.0500	98.9	< 0.0490
1,2,3,4,7,8,9-HpCDF	< 0.0471	K 0.066	101	< 0.0490
OCDF	K 0.061	K 0.168	96.1	0.08
Total Tetra-Dioxins	< 0.0471	< 0.0500		< 0.0490
Total Penta-Dioxins	0.112	< 0.0500		< 0.0490
Total Hexa-Dioxins	< 0.0471	0.069		< 0.0512
Total Hepta-Dioxins	0.086	< 0.0500		0.172
Total Tetra-Furans	0.086	< 0.0500		< 0.0490
Total Penta-Furans	< 0.0471	0.076		< 0.0490
Total Hexa-Furans	< 0.0471	0.163		< 0.0490
Total Hepta-Furans	< 0.0471	< 0.0500		< 0.0490
2,3,7,8-TCDF (C)	< 0.0835			< 0.0933
TEQ (WHO 1998) ND=0	0.112	0.056		0.00187
TEQ (WHO 1998) ND=1/2DL	0.17	0.12		0.087
TEQ (WHO 2005) ND=0	0.112	0.0409		0.00218
TEQ (WHO 2005) ND=1/2DL	0.165	0.105		0.0819
% Lipid	0.69			1.37

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

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CLIENT ID	EFBG01AAF	SLBG02AAF	EFBG02AAF	AJH02AA	RHH01AA
AXYS ID	L10071-14	L10071-16	L10071-18	L10071-2	L10071-3
WORKGROUP	WG22556	WG22556	WG22556	WG22556	WG22556
Sample Size	10.6 g (wet)	10.5 g (wet)	9.96 g (wet)	10.2 g (wet)	11.1 g (wet)
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)
2,3,7,8-TCDD	K 0.073	K 0.085	K 0.068	< 0.0489	< 0.0449
1,2,3,7,8-PeCDD	< 0.0471	< 0.0477	< 0.0502	0.076	< 0.0449
1,2,3,4,7,8-HxCDD	< 0.0471	< 0.0477	< 0.0502	0.055	< 0.0449
1,2,3,6,7,8-HxCDD	< 0.0471	< 0.0477	< 0.0502	0.098	< 0.0449
1,2,3,7,8,9-HxCDD	< 0.0471	< 0.0477	< 0.0502	K 0.254	< 0.0449
1,2,3,4,6,7,8-HpCDD	K 0.135	K 0.061	0.115	3.53	0.383
OCDD	1.36	K 0.331	1.82	83	3.73
2,3,7,8-TCDF	< 0.0471	< 0.0477	< 0.0502	K 0.052	< 0.0449
1,2,3,7,8-PeCDF	< 0.0471	< 0.0477	< 0.0502	< 0.0489	< 0.0449
2,3,4,7,8-PeCDF	< 0.0471	< 0.0477	< 0.0502	0.051	< 0.0449
1,2,3,4,7,8-HxCDF	< 0.0471	< 0.0477	< 0.0502	< 0.0489	< 0.0449
1,2,3,6,7,8-HxCDF	< 0.0471	< 0.0477	< 0.0502	< 0.0489	< 0.0449
1,2,3,7,8,9-HxCDF	< 0.0471	< 0.0477	< 0.0502	< 0.0489	< 0.0449
2,3,4,6,7,8-HxCDF	< 0.0471	< 0.0477	< 0.0502	< 0.0489	< 0.0449
1,2,3,4,6,7,8-HpCDF	K 0.075	< 0.0477	< 0.0502	0.476	0.125
1,2,3,4,7,8,9-HpCDF	K 0.051	< 0.0477	< 0.0502	< 0.0489	< 0.0449
OCDF	K 0.147	0.118	0.074	1.56	0.427
Total Tetra-Dioxins	< 0.0471	< 0.0477	< 0.0502	0.138	< 0.0449
Total Penta-Dioxins	< 0.0471	< 0.0477	< 0.0502	0.076	< 0.0449
Total Hexa-Dioxins	< 0.0471	< 0.0477	< 0.0502	0.788	< 0.0449
Total Hepta-Dioxins	< 0.0471	< 0.0477	0.115	7.74	0.774
Total Tetra-Furans	0.049	< 0.0477	< 0.0502	0.126	< 0.0449
Total Penta-Furans	< 0.0471	< 0.0477	< 0.0502	0.141	< 0.0449
Total Hexa-Furans	< 0.0471	< 0.0477	< 0.0502	< 0.0489	0.073
Total Hepta-Furans	< 0.0471	< 0.0477	< 0.0502	0.879	0.309
% Lipid	0	0	0.28	1.97	0.92
2,3,7,8-TCDF (C)				< 0.0865	
TEQ (WHO 1998) ND=	0.000136	0.0000118	0.00134	0.165	0.0055
TEQ (WHO 1998) ND=	0.0797	0.0806	0.0859	0.208	0.0809
TEQ (WHO 2005) ND=	0.000408	0.0000354	0.00172	0.172	0.00633
TEQ (WHO 2005) ND=	0.0748	0.0754	0.0808	0.214	0.0768

CLIENT ID	LFH01AA-R	LFH02AA-R	LFLMB02AAF	Lab Blank	Spiked Matrix
AXYS ID	L10071-4	L10071-5	L10071-8	WG22556-101	WG22556-102
WORKGROUP	WG22556	WG22556	WG22556	WG22556	WG22556
Sample Size	10.1 g (wet)	11.1 g (wet)	10.1 g (wet)	10.0 g	
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g	% Recov
2,3,7,8-TCDD	K 0.055	K 0.096	K 0.085	< 0.0500	93.9
1,2,3,7,8-PeCDD	K 0.102	0.577	< 0.0495	< 0.0500	94.9
1,2,3,4,7,8-HxCDD	0.192	0.992	< 0.0495	< 0.0500	95
1,2,3,6,7,8-HxCDD	K 0.237	1.38	< 0.0495	< 0.0500	93.4
1,2,3,7,8,9-HxCDD	0.459	3.01	< 0.0495	< 0.0500	96.8
1,2,3,4,6,7,8-HpCDD	5.11	31.9	K 0.070	0.069	90
OCDD	46	319	0.267	0.168	92.1
2,3,7,8-TCDF	0.09	0.129	K 0.056	0.102	99.1
1,2,3,7,8-PeCDF	< 0.0496	0.05	< 0.0495	< 0.0500	91.2
2,3,4,7,8-PeCDF	K 0.052	0.085	< 0.0495	K 0.050	91.4
1,2,3,4,7,8-HxCDF	K 0.117	0.252	< 0.0495	< 0.0500	92.8
1,2,3,6,7,8-HxCDF	K 0.080	0.332	< 0.0495	< 0.0500	93.2
1,2,3,7,8,9-HxCDF	< 0.0496	< 0.0452	< 0.0495	< 0.0500	93
2,3,4,6,7,8-HxCDF	K 0.072	0.356	< 0.0495	< 0.0500	92.6
1,2,3,4,6,7,8-HpCDF	1.36	6.53	< 0.0495	< 0.0500	95.6
1,2,3,4,7,8,9-HpCDF	0.094	0.188	< 0.0495	< 0.0500	93.4
OCDF	2.31	9.18	< 0.0495	0.097	92.7
Total Tetra-Dioxins	0.126	0.422	< 0.0495	< 0.0500	
Total Penta-Dioxins	0.485	3.89	< 0.0495	< 0.0500	
Total Hexa-Dioxins	3.07	20.6	< 0.0495	< 0.0500	
Total Hepta-Dioxins	11	78.1	< 0.0495	0.069	
Total Tetra-Furans	0.465	1.1	< 0.0495	0.102	
Total Penta-Furans	0.294	2.18	< 0.0495	< 0.0500	
Total Hexa-Furans	0.82	6.01	< 0.0495	< 0.0500	
Total Hepta-Furans	2.36	10.2	< 0.0495	< 0.0500	
% Lipid	1.56	1.91	0.2		
2,3,7,8-TCDF (C)	< 0.0883	< 0.0547	< 0.0786	< 0.0864	
TEQ (WHO 1998) ND=	0.136	1.67	0.0000267	0.000717	
TEQ (WHO 1998) ND=	0.216	1.7	0.0851	0.0868	
TEQ (WHO 2005) ND=	0.145	1.72	0.0000801	0.00077	
TEQ (WHO 2005) ND=	0.22	1.75	0.0798	0.0813	

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CLIENT ID	SLSD01AA	SLSD02AA	EFSD01AA	EFSD01AA (Duplicate)
AXYS ID	L10045-1	L10045-2	L10045-3 (A)	322558-103 (DUP L10045
WORKGROUP	WG22558	WG22558	WG22558	WG22558
Sample Size	12.6 g (dry)	10.1 g (dry)	13.3 g (dry)	13.0 g (dry)
UNITS	pg/g (dry weight basis)	pg/g (dry weight basis)	pg/g (dry weight basis)	pg/g (dry weight basis)
2,3,7,8-TCDF (C)	0.166	0.241	< 0.0770	0.077
% Moisture	50.5	46.9	28.9	29.8
2,3,7,8-TCDD	0.206	0.425	K 0.086	K 0.085
1,2,3,7,8-PeCDD	0.588	0.322	0.223	0.319
1,2,3,4,7,8-HxCDD	1.43	0.64	0.536	0.801
1,2,3,6,7,8-HxCDD	2	0.975	0.977	1.27
1,2,3,7,8,9-HxCDD	3.07	1.48	1.25	1.66
1,2,3,4,6,7,8-HpCDD	87.5	34.7	49	64
OCDD	6200	1930	2540	3280
2,3,7,8-TCDF	0.455	0.49	0.151	0.193
1,2,3,7,8-PeCDF	K 0.154	0.177	K 0.053	0.081
2,3,4,7,8-PeCDF	0.247	0.247	K 0.106	0.106
1,2,3,4,7,8-HxCDF	0.307	0.358	0.145	0.157
1,2,3,6,7,8-HxCDF	0.231	0.232	K 0.092	0.124
1,2,3,7,8,9-HxCDF	< 0.0397	K 0.053	< 0.0376	< 0.0385
2,3,4,6,7,8-HxCDF	0.292	0.332	K 0.117	0.137
1,2,3,4,6,7,8-HpCDF	1.78	1.72	1.63	2.03
1,2,3,4,7,8,9-HpCDF	0.141	0.159	0.14	K 0.171
OCDF	3.75	2.45	4.95	6.47
Total Tetra-Dioxins	1.13	1.19	0.318	0.31
Total Penta-Dioxins	4.51	2.63	1.23	1.32
Total Hexa-Dioxins	30	14.7	15.7	21.3
Total Hepta-Dioxins	214	82.5	211	272
Total Tetra-Furans	3.09	2.94	1.13	1.61
Total Penta-Furans	2.99	3.34	1.31	1.83
Total Hexa-Furans	2.75	3.38	2.01	2.66
Total Hepta-Furans	3.01	2.8	5.08	6.41
TEQ (WHO 1998) ND=0	3.18	1.86	1.28	1.79
TEQ (WHO 1998) ND=1/2DL	3.18	1.87	1.31	1.81
TEQ (WHO 2005) ND=0	4.37	2.2	1.78	2.42
TEQ (WHO 2005) ND=1/2DL	4.38	2.2	1.82	2.44

CLIENT ID	EFSD02AA	LFSD01AA	LFSD02AA	LFSD02AB	Lab Blank
AXYS ID	L10045-4	L10045-5	L10045-6	L10045-7	WG22558-101
WORKGROUP	WG22558	WG22558	WG22558	WG22558	WG22558
Sample Size	11.2 g (dry)	12.7 g (dry)	10.5 g (dry)	10.6 g (dry)	10.0 g
UNITS	pg/g (dry weight basis)	pg/g (dry weight basis)	pg/g (dry weight basis)	pg/g (dry weight basis)	pg/g
2,3,7,8-TCDF (C)	< 0.135	0.359	0.46	K 0.457	
% Moisture	34.5	46.6	60.3	56.2	
2,3,7,8-TCDD	K 0.104	0.167	K 0.202	0.183	< 0.0500
1,2,3,7,8-PeCDD	0.379	0.429	0.515	0.548	< 0.0500
1,2,3,4,7,8-HxCDD	0.775	0.957	1.36	1.37	< 0.0500
1,2,3,6,7,8-HxCDD	1.06	1.44	2.02	1.97	< 0.0500
1,2,3,7,8,9-HxCDD	1.48	2.34	3.37	3.22	< 0.0500
1,2,3,4,6,7,8-HpCDD	45.8	57.5	82.4	80.2	K 0.083
OCDD	3090	2370	3720	3550	0.307
2,3,7,8-TCDF	0.228	0.564	0.757	0.702	< 0.0500
1,2,3,7,8-PeCDF	0.095	0.159	0.21	0.205	< 0.0500
2,3,4,7,8-PeCDF	0.147	0.22	0.287	0.27	K 0.059
1,2,3,4,7,8-HxCDF	0.182	0.232	0.368	0.381	< 0.0500
1,2,3,6,7,8-HxCDF	0.127	0.211	0.324	0.293	< 0.0500
1,2,3,7,8,9-HxCDF	< 0.0447	< 0.0393	< 0.0474	< 0.0470	< 0.0500
2,3,4,6,7,8-HxCDF	0.16	0.243	0.321	0.306	< 0.0500
1,2,3,4,6,7,8-HpCDF	1.06	1.83	2.85	2.73	< 0.0500
1,2,3,4,7,8,9-HpCDF	0.092	K 0.125	0.18	0.179	0.052
OCDF	2.03	2.97	5.06	4.81	0.076
Total Tetra-Dioxins	0.301	0.929	0.802	1.28	< 0.0500
Total Penta-Dioxins	1.48	3.22	5.07	4.51	< 0.0500
Total Hexa-Dioxins	15.5	24	34.7	34.1	< 0.0500
Total Hepta-Dioxins	123	164	242	237	< 0.0500
Total Tetra-Furans	1.48	4.53	5.96	5.39	< 0.0500
Total Penta-Furans	1.78	2.96	4.88	4.47	< 0.0500
Total Hexa-Furans	1.83	3.24	5.07	5.15	< 0.0500
Total Hepta-Furans	2.06	3.37	5.5	5.39	0.052
TEQ (WHO 1998) ND=0	1.61	2.12	2.72	2.82	0.000558
TEQ (WHO 1998) ND=1/2DL	1.65	2.12	2.74	2.82	0.0848
TEQ (WHO 2005) ND=0	2.2	2.55	3.4	3.47	0.000635
TEQ (WHO 2005) ND=1/2DL	2.23	2.55	3.43	3.48	0.0794

CLIENT ID	Spiked Matrix
AXYS ID	WG22558-102
WORKGROUP	WG22558
Sample Size	
UNITS	% Recov
2,3,7,8-TCDF (C)	
% Moisture	
2,3,7,8-TCDD	101
1,2,3,7,8-PeCDD	103
1,2,3,4,7,8-HxCDD	101
1,2,3,6,7,8-HxCDD	102
1,2,3,7,8,9-HxCDD	97.4
1,2,3,4,6,7,8-HpCDD	99.4
OCDD	101
2,3,7,8-TCDF	105
1,2,3,7,8-PeCDF	101
2,3,4,7,8-PeCDF	100
1,2,3,4,7,8-HxCDF	99.2
1,2,3,6,7,8-HxCDF	101
1,2,3,7,8,9-HxCDF	102
2,3,4,6,7,8-HxCDF	102
1,2,3,4,6,7,8-HpCDF	108
1,2,3,4,7,8,9-HpCDF	103
OCDF	106
Total Tetra-Dioxins	
Total Penta-Dioxins	
Total Hexa-Dioxins	
Total Hepta-Dioxins	
Total Tetra-Furans	
Total Penta-Furans	
Total Hexa-Furans	
Total Hepta-Furans	
TEQ (WHO 1998) ND=0	
TEQ (WHO 1998) ND=1/2DL	
TEQ (WHO 2005) ND=0	
TEQ (WHO 2005) ND=1/2DL	

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

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CLIENT ID	LFBG01AAF	Lab Blank	Spiked Matrix
AXYS ID	L10071-10	WG22793-101	WG22793-102
WORKGROUP	WG22793	WG22793	WG22793
Sample Size	10.5 g (wet)	10.0 g	
UNITS	pg/g (wet weight basis)	pg/g	% Recov
2,3,7,8-TCDD	K 0.048	< 0.0500	107
1,2,3,7,8-PeCDD	< 0.0475	< 0.0500	103
1,2,3,4,7,8-HxCDD	< 0.0475	< 0.0500	103
1,2,3,6,7,8-HxCDD	< 0.0475	< 0.0500	106
1,2,3,7,8,9-HxCDD	< 0.0475	< 0.0500	104
1,2,3,4,6,7,8-HpCDD	K 0.110	0.054	105
OCDD	0.354	K 0.233	104
2,3,7,8-TCDF	< 0.0475	< 0.0500	106
1,2,3,7,8-PeCDF	< 0.0475	< 0.0500	101
2,3,4,7,8-PeCDF	< 0.0475	< 0.0500	102
1,2,3,4,7,8-HxCDF	< 0.0475	< 0.0500	101
1,2,3,6,7,8-HxCDF	< 0.0475	< 0.0500	103
1,2,3,7,8,9-HxCDF	< 0.0475	< 0.0500	104
2,3,4,6,7,8-HxCDF	< 0.0475	< 0.0500	103
1,2,3,4,6,7,8-HpCDF	K 0.062	< 0.0500	107
1,2,3,4,7,8,9-HpCDF	< 0.0475	< 0.0500	105
OCDF	0.229	0.087	101
Total Tetra-Dioxins	< 0.0475	< 0.0500	
Total Penta-Dioxins	< 0.0475	< 0.0500	
Total Hexa-Dioxins	< 0.0475	< 0.0500	
Total Hepta-Dioxins	< 0.0475	0.054	
Total Tetra-Furans	< 0.0475	< 0.0500	
Total Penta-Furans	< 0.0475	< 0.0500	
Total Hexa-Furans	< 0.0475	< 0.0500	
Total Hepta-Furans	< 0.0475	< 0.0500	
% Lipid	0.46		
TEQ (WHO 1998) ND=0	0.0000583	0.000549	
TEQ (WHO 1998) ND=1/2DL	0.0803	0.0848	
TEQ (WHO 2005) ND=0	0.000175	0.000566	
TEQ (WHO 2005) ND=1/2DL	0.0752	0.0793	

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

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CLIENT ID	AJH01AA	LFBG02AAF	LFLMB01AAF	Lab Blank	Spiked Matrix
AXYS ID	L10071-1	L10071-12	L10071-6 (A)	WG22882-101	WG22882-102
WORKGROUP	WG22882	WG22882	WG22882	WG22882	WG22882
Sample Size	10.0 g (wet)	10.1 g (wet)	10.2 g (wet)	10.0 g	
UNITS	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g (wet weight basis)	pg/g	% Recov
2,3,7,8-TCDD	< 0.0500	< 0.0494	< 0.0492	< 0.0500	97.1
1,2,3,7,8-PeCDD	< 0.0500	< 0.0494	< 0.0492	< 0.0500	95.3
1,2,3,4,7,8-HxCDD	< 0.0500	< 0.0494	< 0.0492	< 0.0500	92.5
1,2,3,6,7,8-HxCDD	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.2
1,2,3,7,8,9-HxCDD	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.6
1,2,3,4,6,7,8-HpCDD	0.602	K 0.110	0.054	K 0.099	95.1
OCDD	6.61	0.198	0.227	0.313	93.2
2,3,7,8-TCDF	0.058	< 0.0494	< 0.0492	< 0.0500	96.6
1,2,3,7,8-PeCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.6
2,3,4,7,8-PeCDF	K 0.065	< 0.0494	< 0.0492	< 0.0500	93.6
1,2,3,4,7,8-HxCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.6
1,2,3,6,7,8-HxCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.3
1,2,3,7,8,9-HxCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.5
2,3,4,6,7,8-HxCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	93.4
1,2,3,4,6,7,8-HpCDF	0.353	< 0.0494	< 0.0492	< 0.0500	95.4
1,2,3,4,7,8,9-HpCDF	< 0.0500	< 0.0494	< 0.0492	< 0.0500	95.5
OCDF	2.25	< 0.0494	K 0.113	K 0.089	90.5
Total Tetra-Dioxins	< 0.0500	< 0.0494	< 0.0492	< 0.0500	
Total Penta-Dioxins	< 0.0500	< 0.0494	< 0.0492	< 0.0500	
Total Hexa-Dioxins	< 0.0500	< 0.0494	< 0.0492	< 0.0500	
Total Hepta-Dioxins	1.2	< 0.0494	0.054	< 0.0535	
Total Tetra-Furans	0.058	< 0.0494	< 0.0492	< 0.0500	
Total Penta-Furans	< 0.0500	< 0.0494	< 0.0492	< 0.0500	
Total Hexa-Furans	0.059	< 0.0494	< 0.0492	< 0.0500	
Total Hepta-Furans	0.635	< 0.0494	< 0.0492	< 0.0500	
TEQ (WHO 1998) ND=0	0.0104	0.0000198	0.000563	0.0000313	
TEQ (WHO 1998) ND=1/2DL	0.0944	0.0835	0.0835	0.0846	
TEQ (WHO 2005) ND=0	0.0122	0.0000594	0.000608	0.0000939	
TEQ (WHO 2005) ND=1/2DL	0.0907	0.0781	0.0781	0.0791	
% Lipid	2.09	0.28	0.21		
2,3,7,8-TCDF (C)	< 0.0500				

CLIENT ID	LFLMB01AAF (Duplicate)
AXYS ID	WG22882-104 (DUP L10071-6)
WORKGROUP	WG22882
Sample Size	10.0 g (wet)
UNITS	pg/g (wet weight basis)
2,3,7,8-TCDD	K 0.054
1,2,3,7,8-PeCDD	< 0.0498
1,2,3,4,7,8-HxCDD	< 0.0498
1,2,3,6,7,8-HxCDD	< 0.0498
1,2,3,7,8,9-HxCDD	< 0.0498
1,2,3,4,6,7,8-HpCDD	K 0.061
OCDD	0.185
2,3,7,8-TCDF	< 0.0498
1,2,3,7,8-PeCDF	< 0.0498
2,3,4,7,8-PeCDF	K 0.053
1,2,3,4,7,8-HxCDF	< 0.0498
1,2,3,6,7,8-HxCDF	< 0.0498
1,2,3,7,8,9-HxCDF	< 0.0498
2,3,4,6,7,8-HxCDF	< 0.0498
1,2,3,4,6,7,8-HpCDF	< 0.0498
1,2,3,4,7,8,9-HpCDF	< 0.0498
OCDF	< 0.0498
Total Tetra-Dioxins	< 0.0498
Total Penta-Dioxins	< 0.0498
Total Hexa-Dioxins	< 0.0498
Total Hepta-Dioxins	< 0.0498
Total Tetra-Furans	< 0.0498
Total Penta-Furans	< 0.0498
Total Hexa-Furans	< 0.0498
Total Hepta-Furans	< 0.0498
TEQ (WHO 1998) ND=0	0.0000185
TEQ (WHO 1998) ND=1/2DL	0.0842
TEQ (WHO 2005) ND=0	0.0000555
TEQ (WHO 2005) ND=1/2DL	0.0787
% Lipid	0.22
2,3,7,8-TCDF (C)	

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

K	=	peak detected but did not meet quantification criteria number following this flag represents the estimated maximum possible concentration
<	=	less than the detection limit number following this symbol represents the detection limit For homologue totals sums, please see the individual congener data for the detection limit.

There may be additional flags associated with these data; please see individual hard copy reports for a complete list of flags and definitions.

CLIENT ID	AJM01AA	AJM02AA	Lab Blank	Spiked Matrix	AJM02AA (Duplicate)
AXYS ID	L10043-1	L10043-2 (A)	WG23176-101	WG23176-102	WG23176-104 (DUP L10043-2)
WORKGROUP	WG23176	WG23176	WG23176	WG23176	WG23176
Sample Size	0.0504 L (wet)	0.0501 L (wet)	0.0500 L		0.0504 L (wet)
UNITS	pg/L (wet weight basis)	pg/L (wet weight basis)	pg/L	% Recov	pg/L (wet weight basis)
2,3,7,8-TCDD	K 10.4	K 12.2	< 10.0	90.9	K 11.9
1,2,3,7,8-PeCDD	30.1	23.4	< 10.0	88.2	K 27.1
1,2,3,4,7,8-HxCDD	31	K 28.3	< 10.0	88.9	K 30.9
1,2,3,6,7,8-HxCDD	91	K 73.5	< 10.0	90.8	77.8
1,2,3,7,8,9-HxCDD	39.2	K 46.3	< 10.0	94.8	44.5
1,2,3,4,6,7,8-HpCDD	261	247	K 16.7	88.4	223
OCDD	363	335	47.9	87	343
2,3,7,8-TCDF	< 9.93	< 9.98	< 10.0	92.3	< 9.91
1,2,3,7,8-PeCDF	< 9.93	< 9.98	< 10.0	87.2	< 9.91
2,3,4,7,8-PeCDF	13.9	11.3	11.9	88.5	14.8
1,2,3,4,7,8-HxCDF	11.1	< 9.98	< 10.0	87.1	< 9.91
1,2,3,6,7,8-HxCDF	11.3	12.4	< 10.0	87.4	K 9.99
1,2,3,7,8,9-HxCDF	< 9.93	< 9.98	< 10.0	87.6	< 9.91
2,3,4,6,7,8-HxCDF	K 12.4	< 9.98	< 10.0	88.1	K 12.6
1,2,3,4,6,7,8-HpCDF	29.8	37.7	< 10.0	90.6	30.8
1,2,3,4,7,8,9-HpCDF	< 9.93	< 9.98	< 10.0	87.9	< 9.91
OCDF	< 9.93	< 9.98	17	80.8	< 9.91
Total Tetra-Dioxins	< 9.93	< 9.98	< 10.0		< 9.91
Total Penta-Dioxins	30.1	23.4	< 10.0		< 9.91
Total Hexa-Dioxins	172	< 9.98	< 10.0		122
Total Hepta-Dioxins	261	264	< 10.0		223
Total Tetra-Furans	< 9.93	< 9.98	< 10.0		< 9.91
Total Penta-Furans	13.9	11.3	11.9		14.8
Total Hexa-Furans	22.4	12.4	< 10.0		< 9.91
Total Hepta-Furans	29.8	37.7	< 10.0		30.8
% Lipid	3.01	3.43			
TEQ (WHO 1998) ND=0	58.4	33.2	5.96		22.2
TEQ (WHO 1998) ND=1/2DL	65.1	42	20.4		35.4
TEQ (WHO 2005) ND=0	55.6	31	3.59		19.3
TEQ (WHO 2005) ND=1/2DL	62.3	39.7	17.9		32.4

See below for definitions of possible flags and labels in the database (sheet tab 'GenericEDD')

K	=	peak detected but did not meet quantification criteria number following this flag represents the estimated maximum possible concentration
<	=	less than the detection limit number following this symbol represents the detection limit For homologue totals sums, please see the individual congener data for the detection limit.

There may be additional flags associated with these data; please see individual hard copy reports for a complete list of flags and definitions.

July 5, 2007

Ms. Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

RE: Katahdin Lab Number: SA2939
Project ID: 04739-003 MCRRF
Project Manager: Mrs. Andrea Colby
Sample Receipt Date(s): June 13, 2007

Dear Ms. Durocher:

Please find enclosed the following information:

- * Report of Analysis (Analytical and/or Field)
- * Quality Control Data Summary
- * Chain of Custody (COC)
- * Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES



Authorized Signature

07/05/2007

Date

DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Organics- Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. Metals- Indicates the analyte was detected in the sample at a concentration greater than the instrument detection limit, but less than the laboratory's Practical Quantitation Level.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.
MCL	Maximum Contaminant Level
NL	No limit
NFL	No Free Liquid Present
FLP	Free Liquid Present
NOD	No Odor Detected

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW02AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.06	B		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	49500			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	0.34	B		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	2.4			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW02AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	46500			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	1.1			MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	2.1			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW02AB

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	B		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
7439-92-1	LEAD, TOTAL	0.30	B		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	2.4			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW02AB

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
7439-92-1	LEAD, DISSOLVED	1.8			MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	2.0			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW01AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-005

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	49400			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	0.31	B		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	2.1			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSW01AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	46400			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	0.77	B		MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	1.8			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSW02AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-007

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.21	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	3.1			MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	112000			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	3.4			MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	4.5			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSW02AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.06	B		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	102000			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	1.4			MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	1.1			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSW01AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-009

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	105000			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	0.52	B		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	1.5			MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSW01AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	97000			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	4.0			MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	0.92	B		MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSD01AC

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-011

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
7439-92-1	LEAD, TOTAL	0.15	U		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	0.35	U		MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: AJM01AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	6.90	U		MS	5	10	6.90
7440-41-7	BERYLLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-43-9	CADMIUM, TOTAL	0.15	B		MS	5	2.0	0.10
7440-47-3	CHROMIUM, TOTAL	139			MS	5	6.0	1.90
7439-92-1	LEAD, TOTAL	3.7			MS	5	2.0	0.30
7439-97-6	MERCURY, TOTAL	0.25	U	N	CV	1	5.0	0.25
7440-02-0	NICKEL, TOTAL	5.6			MS	5	2.0	0.70

Bottle ID: C

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: AJM02AA

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-013

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	6.90	U		MS	5	10	6.90
7440-41-7	BERYLLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-43-9	CADMIUM, TOTAL	0.21	B		MS	5	2.0	0.10
7440-47-3	CHROMIUM, TOTAL	132			MS	5	6.0	1.90
7439-92-1	LEAD, TOTAL	3.1			MS	5	2.0	0.30
7439-97-6	MERCURY, TOTAL	0.25	U	N	CV	1	5.0	0.25
7440-02-0	NICKEL, TOTAL	5.2			MS	5	2.0	0.70

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: AJM02AB

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	6.90	U		MS	5	10	6.90
7440-41-7	BERYLLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-43-9	CADMIUM, TOTAL	0.30	B		MS	5	2.0	0.10
7440-47-3	CHROMIUM, TOTAL	127			MS	5	6.0	1.90
7439-92-1	LEAD, TOTAL	3.7			MS	5	2.0	0.30
7439-97-6	MERCURY, TOTAL	0.25	U	N	CV	1	5.0	0.25
7440-02-0	NICKEL, TOTAL	5.4			MS	5	2.0	0.70

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD02AA

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 55.0

Lab Sample ID: SA2939-015

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	1.2			MS	5	0.65	0.22
7440-41-7	BERYLLIUM, TOTAL	0.74			MS	5	0.13	0.01
7440-43-9	CADMIUM, TOTAL	0.09	B		MS	5	0.13	0.02
7440-47-3	CHROMIUM, TOTAL	22.1			MS	5	0.39	0.24
7439-92-1	LEAD, TOTAL	17.1			MS	5	0.13	0.04
7439-97-6	MERCURY, TOTAL	0.02	B		CV	1	0.056	0.01
7440-02-0	NICKEL, TOTAL	16.9			MS	5	0.13	0.05

Color Before: N/A

Texture: N/A

Color After: N/A

Clarity After: N/A

Bottle ID: L

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2939-15
Report Date: 28-JUN-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2939

Sample Description

EFSD02AA

<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SL	12-JUN-07	13-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	16000 ug/gdrywt	730	LLOYDKAHN	WG40328	21-JUN-07 09:05:11	N/A	N/A	CP	
Total Solids	55. %	1	CLP SOW 788	WG40162	15-JUN-07 09:04:00	CLP SOW 788	14-JUN-07	JF	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD01AA

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 55.5

Lab Sample ID: SA2939-016

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	2.7			MS	5	0.66	0.23
7440-41-7	BERYLLIUM, TOTAL	0.80			MS	5	0.13	0.01
7440-43-9	CADMIUM, TOTAL	0.08	B		MS	5	0.13	0.02
7440-47-3	CHROMIUM, TOTAL	21.9			MS	5	0.40	0.24
7439-92-1	LEAD, TOTAL	15.6			MS	5	0.13	0.04
7439-97-6	MERCURY, TOTAL	0.02	B		CV	1	0.055	0.01
7440-02-0	NICKEL, TOTAL	16.3			MS	5	0.13	0.05

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2939-16
Report Date: 28-JUN-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2939

Sample Description

EFSD01AA

Matrix

SL

Date Sampled

12-JUN-07

Date Received

13-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	16000 ug/gdrywt	720	LLOYDKAHN	WG40328	21-JUN-07 10:17:20	N/A	N/A	CP	
Total Solids	56. %	1	CLP SOW 788	WG40162	15-JUN-07 09:02:00	CLP SOW 788	14-JUN-07	JF	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSD02AA

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 31.2

Lab Sample ID: SA2939-017

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	1.4			MS	5	1.2	0.40
7440-41-7	BERYLLIUM, TOTAL	1.0			MS	5	0.24	0.02
7440-43-9	CADMIUM, TOTAL	0.17	B		MS	5	0.24	0.04
7440-47-3	CHROMIUM, TOTAL	27.2			MS	5	0.70	0.42
7439-92-1	LEAD, TOTAL	17.4			MS	5	0.24	0.07
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.10	0.02
7440-02-0	NICKEL, TOTAL	19.5			MS	5	0.24	0.08

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2939-17
Report Date: 28-JUN-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2939

Sample Description

LFSD02AA

<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SL	12-JUN-07	13-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	43000 ug/gdrywt	1300	LLOYDKAHN	WG40328	21-JUN-07 11:01:03	N/A	N/A	CP	
Total Solids	31. %	1	CLP SOW 788	WG40162	15-JUN-07 09:05:00	CLP SOW 788	14-JUN-07	JF	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSD02AB

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 32.8

Lab Sample ID: SA2939-018

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	1.6			MS	5	1.3	0.46
7440-41-7	BERYLLIUM, TOTAL	1.1			MS	5	0.27	0.03
7440-43-9	CADMIUM, TOTAL	0.17	B		MS	5	0.27	0.04
7440-47-3	CHROMIUM, TOTAL	29.8			MS	5	0.81	0.49
7439-92-1	LEAD, TOTAL	18.8			MS	5	0.27	0.08
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.091	0.02
7440-02-0	NICKEL, TOTAL	21.6			MS	5	0.27	0.09

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Raleigh, NC 27616

Lab Sample ID: SA2939-18
Report Date: 28-JUN-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2939

Sample Description

LFSD02AB

Matrix

SL

Date Sampled

12-JUN-07

Date Received

13-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	33. %	1	CLP SOW 788	WG40162	15-JUN-07 09:06:00	CLP SOW 788	14-JUN-07	JF	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFSD01AA

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 37.3

Lab Sample ID: SA2939-019

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	1.2			MS	5	1.2	0.41
7440-41-7	BERYLLIUM, TOTAL	0.86			MS	5	0.24	0.02
7440-43-9	CADMIUM, TOTAL	0.19	B		MS	5	0.24	0.04
7440-47-3	CHROMIUM, TOTAL	24.3			MS	5	0.73	0.44
7439-92-1	LEAD, TOTAL	15.8			MS	5	0.24	0.07
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.069	0.01
7440-02-0	NICKEL, TOTAL	18.0			MS	5	0.24	0.09

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2939-19
Report Date: 28-JUN-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2939

Sample Description

LFSD01AA

Matrix

SL

Date Sampled

12-JUN-07

Date Received

13-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	41000 ug/gdrywt	1100	LLOYDKAHN	WG40328	21-JUN-07 11:15:13	N/A	N/A	CP	
Total Solids	37. %	1	CLP SOW 788	WG40162	15-JUN-07 09:07:00	CLP SOW 788	14-JUN-07	JF	

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXF14ICS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XF14ICS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ARSENIC	0.170	U
BERYLLIUM	0.010	U
CADMIUM	0.010	U
CHROMIUM	0.180	U
LEAD	0.084	B
NICKEL	0.035	B

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXF14ICS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XF14ICS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	289.0	269.88	93.4	81	119
BERYLLIUM	54.4	52.89	97.2	83	117
CADMIUM	101.0	101.52	100.5	82	118
CHROMIUM	224.0	239.69	107.0	80	120
LEAD	158.0	154.27	97.6	82	118
NICKEL	120.0	116.67	97.2	83	118

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXF27HGS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XF27HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXF27HGS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XF27HGS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	4.79	92.1	66	133

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXG02HGS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XG02HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXG02HGS0

Matrix: SOIL

SDG Name: SA2939

QC Batch ID: XG02HGS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	5.18	99.6	66	133

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBWXF15ICW3

Matrix: WATER

SDG Name: SA2939

QC Batch ID: XF15ICW3

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	3.470	U
BERYLLIUM	-0.102	B
CADMIUM	-0.032	B
CALCIUM	27.850	U
CHROMIUM	0.960	U
LEAD	0.140	U
MAGNESIUM	6.600	U
NICKEL	0.330	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSWXF15ICW3

Matrix: WATER

SDG Name: SA2939

QC Batch ID: XF15ICW3

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	500.0	476.20	95.2	80	120
BERYLLIUM	50.0	43.14	86.3	80	120
CADMIUM	250.0	244.80	97.9	80	120
CALCIUM	2500.0	2172.00	86.9	80	120
CHROMIUM	200.0	193.30	96.7	80	120
LEAD	500.0	474.20	94.8	80	120
MAGNESIUM	5000.0	4970.00	99.4	80	120
NICKEL	500.0	475.30	95.1	80	120

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services**Sample ID:** PBWXF19HGW1**Matrix:** WATER**SDG Name:** SA2939**QC Batch ID:** XF19HGW1

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	-0.081	B

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services**Sample ID:** LCSWXF19HGW1**Matrix:** WATER**SDG Name:** SA2939**QC Batch ID:** XF19HGW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	5.53	110.6	80	120

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: AJM01AAS

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-012S

Concentration Units : ug/L

Analyte	Spiked		C	Sample		C	Spike	%R	Q	Control Limits (%R)		
	Sample	Result		Result	Low					High	M	
ARSENIC, TOTAL		1042.0000		0.2014	U		1000	104.2		75	125	MS
BERYLLIUM, TOTAL		102.7400		0.0441	U		100	102.7		75	125	MS
CADMIUM, TOTAL		490.4000		0.1479	B		500	98.1		75	125	MS
CHROMIUM, TOTAL		465.0000		138.6000			400	81.6		75	125	MS
LEAD, TOTAL		899.0000		3.7450			1000	89.5		75	125	MS
MERCURY, TOTAL		16.8500		-1.8750	U		25	67.4	N	75	125	CV
NICKEL, TOTAL		891.8000		5.5890			1000	88.6		75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: AJM01AAS

Matrix: WATER

SDG Name: SA2939

Percent Solids: 0.00

Lab Sample ID: SA2939-012P

Concentration Units : ug/L

Analyte	Spiked		C	Sample		Spike	%R	Q	Control Limits (%R)		M
	Sample	Result		Result	C				Low	High	
ARSENIC, TOTAL	1076.4000			0.2014	U	1000	107.6		75	125	MS
BERYLLIUM, TOTAL	103.5600			0.0441	U	100	103.6		75	125	MS
CADMIUM, TOTAL	515.8000			0.1479	B	500	103.1		75	125	MS
CHROMIUM, TOTAL	472.2000			138.6000		400	83.4		75	125	MS
LEAD, TOTAL	929.8000			3.7450		1000	92.6		75	125	MS
MERCURY, TOTAL	16.5250			-1.8750	U	25	66.1	N	75	125	CV
NICKEL, TOTAL	918.4000			5.5890		1000	91.3		75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services
Matrix: WATER
Percent Solids: 0.00

Client Field ID: AJM01AA
SDG Name: SA2939
Lab Sample ID: SA2939-012

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		1042.0000		1076.4000		3.2		MS
BERYLLIUM, TOTAL		102.7400		103.5600		0.8		MS
CADMIUM, TOTAL		490.4000		515.8000		5.0		MS
CHROMIUM, TOTAL		465.0000		472.2000		1.5		MS
LEAD, TOTAL		899.0000		929.8000		3.4		MS
MERCURY, TOTAL	5	16.8500		16.5250		1.9		CV
NICKEL, TOTAL		891.8000		918.4000		2.9		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: AJM01AAL

Matrix: WATER

SDG Name: SA2939

Lab Sample ID: SA2939-012L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	0.02	U		-0.22	U			MS
BERYLLIUM, TOTAL	0.00	U		0.06	B			MS
CADMIUM, TOTAL	0.01	B		0.08	B	700.0		MS
CHROMIUM, TOTAL	13.86			14.48	B	4.5		MS
LEAD, TOTAL	0.37	B		0.34	B	8.1		MS
MERCURY, TOTAL	-0.07	U		-0.40	U			CV
NICKEL, TOTAL	0.56	B		0.58	B	3.6		MS

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD01AAS

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 55.5

Lab Sample ID: SA2939-016S

Concentration Units : mg/Kgdrywt

Analyte	Spiked		Sample		Spike		%R	Q	Control Limits (%R)		M
	Sample	Result	C	Result	C	Added			Low	High	
ARSENIC, TOTAL		66.3457		2.6805		67.21	94.7		75	125	MS
BERYLLIUM, TOTAL		6.6561		0.7953		6.72	87.2		75	125	MS
CADMIUM, TOTAL		34.1810		0.0793	B	33.6	101.5		75	125	MS
CHROMIUM, TOTAL		47.7431		21.8783		26.88	96.2		75	125	MS
LEAD, TOTAL		76.9374		15.6539		67.21	91.2		75	125	MS
MERCURY, TOTAL		0.2557		0.0211	B	0.27	86.9		75	125	CV
NICKEL, TOTAL		79.8676		16.2631		67.21	94.6		75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD01AAS

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 55.5

Lab Sample ID: SA2939-016P

Concentration Units : mg/Kgdrywt

Analyte	Spiked		C	Sample		C	Spike	%R	Q	Control Limits (%R)		M
	Sample	Result		Result						Low	High	
ARSENIC, TOTAL		65.4941		2.6805			66.71	94.2		75	125	MS
BERYLLIUM, TOTAL		6.3786		0.7953			6.67	83.7		75	125	MS
CADMIUM, TOTAL		33.6076		0.0793	B		33.35	100.5		75	125	MS
CHROMIUM, TOTAL		46.3755		21.8783			26.68	91.8		75	125	MS
LEAD, TOTAL		75.6070		15.6539			66.71	89.9		75	125	MS
MERCURY, TOTAL		0.2860		0.0211	B		0.27	98.1		75	125	CV
NICKEL, TOTAL		78.4888		16.2631			66.71	93.3		75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD01AA

Matrix: SOIL

SDG Name: SA2939

Percent Solids: 55.5

Lab Sample ID: SA2939-016

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		66.3457		65.4941		1.3		MS
BERYLLIUM, TOTAL	1.3	6.6561		6.3786		4.3		MS
CADMIUM, TOTAL		34.1810		33.6076		1.7		MS
CHROMIUM, TOTAL		47.7431		46.3755		2.9		MS
LEAD, TOTAL		76.9374		75.6070		1.7		MS
MERCURY, TOTAL	0.054	0.2557		0.2860		11.2		CV
NICKEL, TOTAL		79.8676		78.4888		1.7		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: EFSD01AAL

Matrix: SOIL

SDG Name: SA2939

Lab Sample ID: SA2939-016L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	4.05	B		3.92	B	3.2		MS
BERYLLIUM, TOTAL	1.20			1.28	B	6.7		MS
CADMIUM, TOTAL	0.12	B		0.14	U	100.0		MS
CHROMIUM, TOTAL	33.04			32.97		0.2		MS
LEAD, TOTAL	23.64			23.82		0.8		MS
MERCURY, TOTAL	0.08	B		0.06	U	100.0		CV
NICKEL, TOTAL	24.56			25.11		2.2		MS

Quality Control Report

Blank Sample Summary Report

TOC in Soil

<u>Samp Type</u>	<u>QC Batch</u>	<u>Anal. Method</u>	<u>Anal. Date</u>	<u>Prep. Date</u>	<u>Result</u>	<u>PQL</u>
MBLANK	WG40328	Lloyd Kahn	21-JUN-07	N/A	U 400 ug/gdrywt	00 ug/gdryw

Total Solids

<u>Samp Type</u>	<u>QC Batch</u>	<u>Anal. Method</u>	<u>Anal. Date</u>	<u>Prep. Date</u>	<u>Result</u>	<u>PQL</u>
MBLANK	WG40162	CLP SOW 788	15-JUN-07	14-JUN-07	U 1 %	1 %

Quality Control Report

Laboratory Control Sample Summary Report

TOC In Soil

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG40328-2	LCS	WG40328	21-JUN-07	N/A	ug/gdrywt	400000.000	420000	105	80-120	

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG40162-2	LCS	WG40162	15-JUN-07	14-JUN-07	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

TOC In Soil

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG40328-3	SA2939-15	WG40328	21-JUN-07	ug/gdrywt	16000	17000	5*	

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG40162-3	SA2939-16	WG40162	15-JUN-07	%	56.	56.	0	20

Quality Control Report
Matrix Spike Sample Summary Report

TOC In Soil

Matrix Spike Sample ID	Sample Type	Original Sample ID	QC Batch	Analysis Date	Result Units	Spike Amount	Sample Result	MS Result	Recovery (%)	Recovery Limit
WG40328-4	MS	SA2939-15	WG40328	21-JUN-07	ug/gdrywt	108661.8	16000	140000	118	75 - 125

Client: ENSR		KAS PM: ASC	Sampled By: Client
Project:		KIMS Entry By: DD	Delivered By: FEDEX
KAS Work Order#: SA 2939		KIMS Review By: ASC	Received By: DD
SDG #:	Cooler: 1 of 1	Date/Time Rec.: 06/30/1000	

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	X				
2. Chain of Custody present in cooler?	X				
3. Chain of Custody signed by client?	X				
4. Chain of Custody matches samples?	X*				
5. Temperature Blanks present?	X				Temp (°C): 1.1
6. Samples received at < 6 °C w/o freezing? (ice or ice packs present? <input checked="" type="radio"/> or N	X				Cooler temp. (°C): (if no temp blank)
7. Volatiles free of headspace?				X	
Aqueous: No bubble larger than a pea				X	
Soil/Sediment:				X	
Received in airtight container?				X	
Received in methanol?				X	
Methanol covering soil?				X	
8. Trip Blank present in cooler?				X	
9. Proper sample containers and volume?	X				
10. Samples within hold time upon receipt?	X				
11. Aqueous samples properly preserved? Metals, COD, NH ₃ , TKN, O/G, phenol, TPO ₄ , N+N, TOC, DRO, TPH - pH <2 Sulfide - >9 Cyanide - pH >12		X		X	metals samples (unfiltered) were preserved with HNO ₃ by lab
				X	
12. Corrective Action Report Filed?					

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

* Samples: **LFS002AA (SL)**
LFS002AB (SL)
LFS001AA (SL)

are labeled as being sampled on 6/12/10 by client
but CUC says 6/11/10

For sample
LFS002AB jar says
metals. All other jars
say metals and TOC. CUC
is checked off for TOC for
this sample.

6/12 is correct for Kristen

CUC not needed

Client Kristen Durocher ENSR Contact _____ Phone # (919) 8726000 Fax # _____
Address 7041 Old Wake Forest Rd #103 Raleigh State NC Zip Code 27616
Purchase Order # _____ Proj. Name / No. MCRRF 04739003 Katahdin Quote # _____

Bill (if different than above) _____ Address _____
Sampler (Print / Sign) Kristen Durocher Copies To: K. Durocher

LAB USE ONLY WORK ORDER #: SA2939
KATAHDIN PROJECT NUMBER _____

REMARKS: _____
SHIPPING INFO: ☐ FED EX ☐ UPS ☐ CLIENT
AIRBILL NO: _____
TEMP °C _____ ☐ TEMP BLANK ☐ INTACT ☐ NOT INTACT

ANALYSIS AND CONTAINER TYPE
PRESERVATIVES

	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.	Filt.
	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
	filter	preserve	filter	preserve	As, Be, Cd, Cr, Pb, Ni, Hg, dissolved As, Be, Cd, Cr Pb Ni Hg	hardness	dis. hardness	use for MS/MSD	TOC					
EFSD02AA														
LFSW02AA														
LFSW02AA														
LFSW02AB														
LFSW01AA														
LFSW01AA														
LFSW02AB														
EFSD02AA														
EFSD02AA														
LFSW01AC														
EFSD01AA														
EFSD01AA														
AJMO1AA														
AJMO2AA														
AJMO2AB														
EFSD01AA														
EFSD02AA														
EFSD02AA														
EFSD01AA														

COMMENTS COC tapes

25379, 25939
Relinquished By: (Signature) _____ Date / Time 6/12/07 1750 Received By: (Signature) _____
Relinquished By: (Signature) _____ Date / Time _____ Received By: (Signature) _____

Login Number: SA2939

Account: ENSR002
ENSR

NoWeb

Project:

Login Information

ANALYSIS INSTRUCTIONS : Lab needs to filter & pres dissolved metals.
CHECK NO. :
CLIENT PO# :
COOLER TEMPERATURE : 1.1
DELIVERY SERVICES : FEDEX
EDD FORMAT : WEST-XLS
MAIL DATE :
PM : AJC
PROJECT NAME : 04739-003 MCRRF
QC LEVEL : II+
REGULATORY LIST :
REPORT INSTRUCTIONS : Rpt to MDL. Suppress Ca & Mg. Send copy on CD.
SDG ID :
SDG STATUS :

Primary Report Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Primary Invoice Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Report CC Addresses:

Invoice CC Addresses:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR Date	Due Date	Comments
SA2939-1	LFSW02AA	12-JUN-07 08:50	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3			
Aqueous	S SW3010-PREP	09-DEC-07				
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3	1		
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CALCIUM	09-DEC-07				
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-MAGNESIUM	09-DEC-07				
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3			
SA2939-2	LFSW02AA	12-JUN-07 08:50	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S FILTERING					
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3	1		
Aqueous	S SW3010-PREP	09-DEC-07				
Aqueous	S SW6020-ARSENIC-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-BERYLLIUM-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CALCIUM	09-DEC-07				
Aqueous	S SW6020-CHROMIUM-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-MAGNESIUM	09-DEC-07				
Aqueous	S SW6020-NICKEL-DIS	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY-DIS	10-JUL-07	500mL Plastic+HNO3			
SA2939-3	LFSW02AB	12-JUN-07 08:50	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S SW3010-PREP	09-DEC-07				
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3	1		
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3			

Jun. 14, 2007

08:28 AM

Login Number: SA2939

Account: ENSR002

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Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR	Date	Due Date	Comments
SA2939-4	LFSW02AB	12-JUN-07 08:50	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S FILTERING			1			
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CHROMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-NICKEL-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	10-JUL-07	500mL Plastic+HNO3				
SA2939-5	LFSW01AA	12-JUN-07 08:45	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	09-DEC-07		1			
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3				
SA2939-6	LFSW01AA	12-JUN-07 08:45	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S FILTERING			1			
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	10-JUL-07	500mL Plastic+HNO3				
SA2939-7	EFSW02AA	12-JUN-07 11:30	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	09-DEC-07		1			
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3				

Login Number: SA2939

Account: ENSR002

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Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR	Date	Due Date	Comments
SA2939-8	EFSW02AA	12-JUN-07 11:30	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S FILTERING						
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3	1			
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	10-JUL-07	500mL Plastic+HNO3				
SA2939-9	EFSW01AA	12-JUN-07 11:20	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3	1			
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3				
SA2939-10	EFSW01AA	12-JUN-07 11:20	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S FILTERING						
Aqueous	S SM2340B-HARDNESS	09-DEC-07	125mL Plastic+HNO3	1			
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	09-DEC-07					
Aqueous	S SW6020-CHROMIUM-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	09-DEC-07					
Aqueous	S SW6020-NICKEL-DIS	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	10-JUL-07	500mL Plastic+HNO3				
SA2939-11	LFSD01AC	12-JUN-07 08:25	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>			
Aqueous	S SW3010-PREP	09-DEC-07					
Aqueous	S SW6020-ARSENIC	09-DEC-07	250mL Plastic+HNO3	1			
Aqueous	S SW6020-BERYLLIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CHROMIUM	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-NICKEL	09-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	10-JUL-07	500mL Plastic+HNO3				

Login Number: SA2939

Account: ENSR002
ENSR

NoWeb

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR Date	Due Date	Comments
SA2939-12	AJM01AA	11-JUN-07 08:25	13-JUN-07		02-JUL-07	MS/MSD
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S MS/MSD					
Aqueous	S SW3010-PREP	08-DEC-07				
Aqueous	S SW6020-ARSENIC	08-DEC-07	250mL Plastic+HNO3	3		
Aqueous	S SW6020-BERYLLIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CHROMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-NICKEL	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY	09-JUL-07	500mL Plastic+HNO3			
SA2939-13	AJM02AA	11-JUN-07 08:35	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S SW3010-PREP	08-DEC-07				
Aqueous	S SW6020-ARSENIC	08-DEC-07	250mL Plastic+HNO3	1		
Aqueous	S SW6020-BERYLLIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CHROMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-NICKEL	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY	09-JUL-07	500mL Plastic+HNO3			
SA2939-14	AJM02AB	11-JUN-07 08:35	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Aqueous	S SW3010-PREP	08-DEC-07				
Aqueous	S SW6020-ARSENIC	08-DEC-07	250mL Plastic+HNO3	1		
Aqueous	S SW6020-BERYLLIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CADMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-CHROMIUM	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-LEAD	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW6020-NICKEL	08-DEC-07	250mL Plastic+HNO3			
Aqueous	S SW7470-MERCURY	09-JUL-07	500mL Plastic+HNO3			
SA2939-15	EFSD02AA	12-JUN-07 12:00	13-JUN-07		02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	26-JUN-07				
Solid	S SW3050-PREP	09-DEC-07		1		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic			
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic			
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic			
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass			
Solid	S TS	12-JUL-07				
SA2939-16	EFSD01AA	12-JUN-07 11:40	13-JUN-07		02-JUL-07	MS/MSD on metals.
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	26-JUN-07				
Solid	S MS/MSD-METALS					
Solid	S SW3050-PREP	09-DEC-07		3		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic			
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic			
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic			
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic			
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass			
Solid	S TS	12-JUL-07				

Login Number: SA2939

Account: ENSR002

NoWeb

ENSR

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2939-17	LFSD02AA	12-JUN-07 09:10	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	26-JUN-07					
Solid	S SW3050-PREP	09-DEC-07			1		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					
SA2939-18	LFSD02AB	12-JUN-07 09:10	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S SW3050-PREP	09-DEC-07			1		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					
SA2939-19	LFSD01AA	12-JUN-07 09:00	13-JUN-07			02-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	26-JUN-07					
Solid	S SW3050-PREP	09-DEC-07			1		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					

Total Samples: 19

Total Analyses: 192

July 5, 2007

Ms. Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

RE: Katahdin Lab Number: SA2976
Project ID: 04739-003 MCRRF
Project Manager: Mrs. Andrea Colby
Sample Receipt Date(s): June 14, 2007

Dear Ms. Durocher:

Please find enclosed the following information:

- * Report of Analysis (Analytical and/or Field)
- * Quality Control Data Summary
- * Chain of Custody (COC)
- * Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES



Authorized Signature

07/05/2007

Date

DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Organics- Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. Metals- Indicates the analyte was detected in the sample at a concentration greater than the instrument detection limit, but less than the laboratory's Practical Quantitation Level.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.
MCL	Maximum Contaminant Level
NL	No limit
NFL	No Free Liquid Present
FLP	Free Liquid Present
NOD	No Odor Detected

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-001

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.12	B		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	1.0	B		MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	36800			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	0.30	B		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	0.50	B		MS	5	1.0	0.35

Bottle ID: C

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	31900			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	0.15	U		MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	0.38	B		MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW02AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-003

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, TOTAL	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, TOTAL	33800			MS	5	660	50.30
7439-92-1	LEAD, TOTAL	0.15	U		MS	5	1.0	0.15
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, TOTAL	0.45	B		MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW02AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, DISSOLVED	3.45	U		MS	5	5.0	3.45
7440-41-7	BERYLLIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, DISSOLVED	0.05	U		MS	5	1.0	0.05
7440-47-3	CHROMIUM, DISSOLVED	0.95	U		MS	5	3.0	0.95
000-03-5	HARDNESS, DISSOLVED	33500			MS	5	660	50.30
7439-92-1	LEAD, DISSOLVED	0.15	U		MS	5	1.0	0.15
7439-97-6	MERCURY, DISSOLVED	0.01	U		CV	1	0.20	0.01
7440-02-0	NICKEL, DISSOLVED	0.42	B		MS	5	1.0	0.35

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSD01AA

Matrix: SOIL

SDG Name: SA2976

Percent Solids: 39.5

Lab Sample ID: SA2976-005

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	1.5			MS	5	0.76	0.26
7440-41-7	BERYLLIUM, TOTAL	0.62			MS	5	0.15	0.02
7440-43-9	CADMIUM, TOTAL	0.08	B		MS	5	0.15	0.02
7440-47-3	CHROMIUM, TOTAL	19.4			MS	5	0.45	0.27
7439-92-1	LEAD, TOTAL	18.0			MS	5	0.15	0.05
7439-97-6	MERCURY, TOTAL	0.03	B		CV	1	0.082	0.02
7440-02-0	NICKEL, TOTAL	12.1			MS	5	0.15	0.05

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2976-5
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2976

<u>Sample Description</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SLSD01AA	SL	13-JUN-07	14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	70000 ug/gdrywt	1000	LLOYDKAHN	WG40328	21-JUN-07 11:31:12	N/A	N/A	CP	
Total Solids	40. %	1	CLP SOW 788	WG40252	20-JUN-07 09:15:00	CLP SOW 788	19-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLSD02AA

Matrix: SOIL

SDG Name: SA2976

Percent Solids: 49.7

Lab Sample ID: SA2976-006

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	2.6			MS	5	0.59	0.20
7440-41-7	BERYLLIUM, TOTAL	0.49			MS	5	0.12	0.01
7440-43-9	CADMIUM, TOTAL	0.08	B		MS	5	0.12	0.02
7440-47-3	CHROMIUM, TOTAL	18.6			MS	5	0.35	0.21
7439-92-1	LEAD, TOTAL	18.9			MS	5	0.12	0.04
7439-97-6	MERCURY, TOTAL	0.05	B		CV	1	0.064	0.01
7440-02-0	NICKEL, TOTAL	8.6			MS	5	0.12	0.04

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2976-6
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2976

<u>Sample Description</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SLSD02AA	SL	13-JUN-07	14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
TOC In Soil	67000 ug/gdrywt	800	LLOYDKAHN	WG40328	21-JUN-07 11:52:24	N/A	N/A	CP	
Total Solids	50. %	1	CLP SOW 788	WG40252	20-JUN-07 09:14:00	CLP SOW 788	19-JUN-07	CP	

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXF22ICS0

Matrix: SOIL

SDG Name: SA2976

QC Batch ID: XF22ICS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ARSENIC	0.170	U
BERYLLIUM	0.010	U
CADMIUM	0.010	U
CHROMIUM	0.180	U
LEAD	0.083	B
NICKEL	0.030	B

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXF22ICS0

Matrix: SOIL

SDG Name: SA2976

QC Batch ID: XF22ICS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	289.0	273.57	94.7	81	119
BERYLLIUM	54.4	48.34	88.9	83	117
CADMIUM	101.0	95.82	94.9	82	118
CHROMIUM	224.0	233.36	104.2	80	120
LEAD	158.0	148.93	94.3	82	118
NICKEL	120.0	115.13	95.9	83	118

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXG02HGS0

Matrix: SOIL

SDG Name: SA2976

QC Batch ID: XG02HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services**Sample ID:** LCSSXG02HGS0**Matrix:** SOIL**SDG Name:** SA2976**QC Batch ID:** XG02HGS0**Concentration Units :** mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	5.18	99.6	66	133

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBWXF15ICW4

Matrix: WATER

SDG Name: SA2976

QC Batch ID: XF15ICW4

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	3.470	U
BERYLLIUM	-0.076	B
CADMIUM	0.030	U
CALCIUM	170.000	
CHROMIUM	0.960	U
LEAD	0.140	U
MAGNESIUM	10.105	B
NICKEL	0.330	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSWXF15ICW4

Matrix: WATER

SDG Name: SA2976

QC Batch ID: XF15ICW4

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	500.0	477.50	95.5	80	120
BERYLLIUM	50.0	42.15	84.3	80	120
CADMIUM	250.0	233.40	93.4	80	120
CALCIUM	2500.0	2354.00	94.2	80	120
CHROMIUM	200.0	189.70	94.8	80	120
LEAD	500.0	467.10	93.4	80	120
MAGNESIUM	5000.0	4699.00	94.0	80	120
NICKEL	500.0	471.00	94.2	80	120

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBWXF15ICW5

Matrix: WATER

SDG Name: SA2976

QC Batch ID: XF15ICW5

Concentration Units : ug/L

Analyte	RESULT	C
ARSENIC	3.470	U
BERYLLIUM	-0.079	B
CADMIUM	0.030	U
CALCIUM	60.000	B
CHROMIUM	0.960	U
LEAD	0.140	U
MAGNESIUM	6.600	U
NICKEL	0.330	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSWXF15ICW5

Matrix: WATER

SDG Name: SA2976

QC Batch ID: XF15ICW5

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	500.0	475.00	95.0	80	120
BERYLLIUM	50.0	42.25	84.5	80	120
CADMIUM	250.0	238.80	95.5	80	120
CALCIUM	2500.0	2090.00	83.6	80	120
CHROMIUM	200.0	202.90	101.4	80	120
LEAD	500.0	465.00	93.0	80	120
MAGNESIUM	5000.0	4443.00	88.9	80	120
NICKEL	500.0	482.10	96.4	80	120

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBWXF19HGW2

Matrix: WATER

SDG Name: SA2976

QC Batch ID: XF19HGW2

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	-0.080	B

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services**Sample ID:** LCSWXF19HGW2**Matrix:** WATER**SDG Name:** SA2976**QC Batch ID:** XF19HGW2

Concentration Units : ug/L					
Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	5.40	108.0	80	120

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAS

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-001S

Concentration Units : ug/L

Analyte	Spiked		Sample		Spike	%R	Q	Control Limits (%R)		M
	Sample	Result	C	Result				Low	High	
ARSENIC, TOTAL	500.7000			1.7410	U	500	100.1	75	125	MS
BERYLLIUM, TOTAL	41.6400			-0.0797	U	50	83.3	75	125	MS
CADMIUM, TOTAL	234.8000			0.1175	B	250	93.9	75	125	MS
CHROMIUM, TOTAL	197.2000			1.0305	B	200	98.1	75	125	MS
LEAD, TOTAL	491.2000			0.2992	B	500	98.2	75	125	MS
MERCURY, TOTAL	1.0290			-0.0690	U	1	102.9	75	125	CV
NICKEL, TOTAL	484.3000			0.5020	B	500	96.8	75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAS

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-001P

Concentration Units : ug/L

Analyte	Spiked		Sample		Spike	%R	Q	Control Limits (%R)		M
	Sample	Result	C	Result				Low	High	
ARSENIC, TOTAL	505.9000			1.7410	U	500	101.2	75	125	MS
BERYLLIUM, TOTAL	42.8200			-0.0797	U	50	85.6	75	125	MS
CADMIUM, TOTAL	242.6000			0.1175	B	250	97.0	75	125	MS
CHROMIUM, TOTAL	205.4000			1.0305	B	200	102.2	75	125	MS
LEAD, TOTAL	493.3000			0.2992	B	500	98.6	75	125	MS
MERCURY, TOTAL	1.0360			-0.0690	U	1	103.6	75	125	CV
NICKEL, TOTAL	502.7000			0.5020	B	500	100.4	75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-001

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		500.7000		505.9000		1.0		MS
BERYLLIUM, TOTAL	10	41.6400		42.8200		2.8		MS
CADMIUM, TOTAL		234.8000		242.6000		3.3		MS
CHROMIUM, TOTAL		197.2000		205.4000		4.1		MS
LEAD, TOTAL		491.2000		493.3000		0.4		MS
MERCURY, TOTAL		1.0290		1.0360		0.7		CV
NICKEL, TOTAL		484.3000		502.7000		3.7		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAL

Matrix: WATER

SDG Name: SA2976

Lab Sample ID: SA2976-001L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	0.35	U		0.00	U			MS
BERYLLIUM, TOTAL	-0.02	U		-0.08	U			MS
CADMIUM, TOTAL	0.02	B		0.06	B	200.0		MS
CHROMIUM, TOTAL	0.21	B		0.23	U	100.0		MS
LEAD, TOTAL	0.06	B		0.12	U	100.0		MS
NICKEL, TOTAL	0.10	B		0.14	U	100.0		MS

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAS

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-002S

Concentration Units : ug/L

Analyte	Spiked		C	Sample		C	Spike	%R	Q	Control Limits (%R)		M
	Sample	Result		Result	Low					High		
ARSENIC, DISSOLVED		483.6000		0.9190	U		500	96.7		75	125	MS
BERYLLIUM, DISSOLVED		42.3300		-0.1288	U		50	84.7		75	125	MS
CADMIUM, DISSOLVED		240.5000		-0.0104	U		250	96.2		75	125	MS
CHROMIUM, DISSOLVED		197.3000		0.4462	U		200	98.7		75	125	MS
LEAD, DISSOLVED		472.3000		-0.0121	U		500	94.5		75	125	MS
MERCURY, DISSOLVED		1.0400		-0.0720	U		1	104.0		75	125	CV
NICKEL, DISSOLVED		482.3000		0.3797	B		500	96.4		75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAS

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-002P

Concentration Units : ug/L

Analyte	Spiked		Sample		Spike	%R	Q	Control Limits (%R)		M
	Sample	Result	C	Result				Low	High	
ARSENIC, DISSOLVED	507.5000			0.9190	U	500	101.5	75	125	MS
BERYLLIUM, DISSOLVED	42.5400			-0.1288	U	50	85.1	75	125	MS
CADMIUM, DISSOLVED	252.9000			-0.0104	U	250	101.2	75	125	MS
CHROMIUM, DISSOLVED	206.7000			0.4462	U	200	103.3	75	125	MS
LEAD, DISSOLVED	499.5000			-0.0121	U	500	99.9	75	125	MS
MERCURY, DISSOLVED	1.0120			-0.0720	U	1	101.2	75	125	CV
NICKEL, DISSOLVED	506.6000			0.3797	B	500	101.2	75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AA

Matrix: WATER

SDG Name: SA2976

Percent Solids: 0.00

Lab Sample ID: SA2976-002

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, DISSOLVED		483.6000		507.5000		4.8		MS
BERYLLIUM, DISSOLVED	10	42.3300		42.5400		0.5		MS
CADMIUM, DISSOLVED		240.5000		252.9000		5.0		MS
CHROMIUM, DISSOLVED		197.3000		206.7000		4.7		MS
LEAD, DISSOLVED		472.3000		499.5000		5.6		MS
MERCURY, DISSOLVED		1.0400		1.0120		2.7		CV
NICKEL, DISSOLVED		482.3000		506.6000		4.9		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: SLSW01AAL

Matrix: WATER

SDG Name: SA2976

Lab Sample ID: SA2976-002L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, DISSOLVED	0.18	U		0.54	U			MS
BERYLLIUM, DISSOLVED	-0.03	U		-0.10	U			MS
CADMIUM, DISSOLVED	0.00	U		0.01	U			MS
CHROMIUM, DISSOLVED	0.09	U		-0.28	U			MS
LEAD, DISSOLVED	0.00	U		-0.02	U			MS
MERCURY, DISSOLVED	-0.07	U		-0.39	U			CV
NICKEL, DISSOLVED	0.08	B		0.09	U	100.0		MS

Quality Control Report

Blank Sample Summary Report

TOC in Soil

<u>Samp Type</u>	<u>QC Batch</u>	<u>Anal. Method</u>	<u>Anal. Date</u>	<u>Prep. Date</u>	<u>Result</u>	<u>PQL</u>
MBLANK	WG40328	Lloyd Kahn	21-JUN-07	N/A	U 400 ug/gdrywt	00 ug/gdryw

Total Solids

<u>Samp Type</u>	<u>QC Batch</u>	<u>Anal. Method</u>	<u>Anal. Date</u>	<u>Prep. Date</u>	<u>Result</u>	<u>PQL</u>
MBLANK	WG40252	CLP SOW 788	20-JUN-07	19-JUN-07	U 1 %	1 %

Quality Control Report

Laboratory Control Sample Summary Report

TOC In Soil

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG40328-2	LCS	WG40328	21-JUN-07	N/A	ug/gdrywt	400000.000	420000	105	80-120	

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG40252-2	LCS	WG40252	20-JUN-07	19-JUN-07	%	90	89.	98	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG40252-3	SA2976-5	WG40252	20-JUN-07	%	40.	38.	4	20

Client: ENSR	KAS PM: AJC	Sampled By: Client
Project:	KIMS Entry By: DD	Delivered By: FedEx
KAS Work Order#: SA2976	KIMS Review By: pc	Received By: DD
SDG #:	Cooler: 1 of 3 (Blue)	Date/Time Rec.: 06/14/07 1005

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	X				
2. Chain of Custody present in cooler?	X				
3. Chain of Custody signed by client?	X				
4. Chain of Custody matches samples?	X				
5. Temperature Blanks present?		X			Temp (°C):
6. Samples received at < 6 °C w/o freezing? <input checked="" type="radio"/> or ice packs present? <input checked="" type="radio"/> or N	X				Cooler temp. (°C): 3.7 (if no temp blank)
7. Volatiles free of headspace?				X	
Aqueous: No bubble larger than a pea				X	
Soil/Sediment:				X	
Received in airtight container?				X	
Received in methanol?				X	
Methanol covering soil?				X	
8. Trip Blank present in cooler?				X	
9. Proper sample containers and volume?	X				
10. Samples within hold time upon receipt?	X				
11. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2 Sulfide – >9 Cyanide – pH >12		X		X	metals samples preserved with HNO ₃ by lab (unfiltered)
				X	
12. Corrective Action Report Filed?				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Page ____ of ____

10083 907

Login Number: SA2976

Account: ENSR002
ENSR

NoWeb

Login Information

ANALYSIS INSTRUCTIONS	:	
CHECK NO.	:	
CLIENT PO#	:	
COOLER TEMPERATURE	:	3.7
DELIVERY SERVICES	:	FEDEX
EDD FORMAT	:	WEST-XLS
MAIL DATE	:	
PM	:	AJC
PROJECT NAME	:	04739-003 MCRRF
QC LEVEL	:	II+
REGULATORY LIST	:	
REPORT INSTRUCTIONS	:	Rpt to MDL. Include copy of rpt on CD. Suppress Ca & Mg.
SDG ID	:	
SDG STATUS	:	

Primary Report Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Primary Invoice Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Report CC Addresses:

Invoice CC Addresses:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2976-1	SLSW01AA	13-JUN-07 08:00	14-JUN-07			03-JUL-07	MS/MSD
Matrix	Product	Hold Date (shortest)	Bottle Type		Bottle Count		
Aqueous	S MS/MSD						
Aqueous	S SM2340B-HARDNESS	10-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	10-DEC-07					
Aqueous	S SW6020-ARSENIC	10-DEC-07	250mL Plastic+HNO3		3		
Aqueous	S SW6020-BERYLLIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	10-DEC-07					
Aqueous	S SW6020-CHROMIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	10-DEC-07					
Aqueous	S SW6020-NICKEL	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	11-JUL-07	500mL Plastic+HNO3				
SA2976-2	SLSW01AA	13-JUN-07 08:00	14-JUN-07			03-JUL-07	MS/MSD
Matrix	Product	Hold Date (shortest)	Bottle Type		Bottle Count		
Aqueous	S FILTERING						
Aqueous	S MS/MSD						
Aqueous	S SM2340B-HARDNESS	10-DEC-07	125mL Plastic+HNO3		3		
Aqueous	S SW3010-PREP	10-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	10-DEC-07					
Aqueous	S SW6020-CHROMIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	10-DEC-07					
Aqueous	S SW6020-NICKEL-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	11-JUL-07	500mL Plastic+HNO3				

Login Number: SA2976

 Account: ENSR002
 ENSR

NoWeb

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2976-3	SLSW02AA	13-JUN-07 08:30	14-JUN-07			03-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Aqueous	S SM2340B-HARDNESS	10-DEC-07	125mL Plastic+HNO3				
Aqueous	S SW3010-PREP	10-DEC-07					
Aqueous	S SW6020-ARSENIC	10-DEC-07	250mL Plastic+HNO3		1		
Aqueous	S SW6020-BERYLLIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	10-DEC-07					
Aqueous	S SW6020-CHROMIUM	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	10-DEC-07					
Aqueous	S SW6020-NICKEL	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY	11-JUL-07	500mL Plastic+HNO3				
SA2976-4	SLSW02AA	13-JUN-07 08:30	14-JUN-07			03-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Aqueous	S FILTERING						
Aqueous	S SM2340B-HARDNESS	10-DEC-07	125mL Plastic+HNO3		1		
Aqueous	S SW3010-PREP	10-DEC-07					
Aqueous	S SW6020-ARSENIC-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-BERYLLIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CADMIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-CALCIUM	10-DEC-07					
Aqueous	S SW6020-CHROMIUM-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-LEAD-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW6020-MAGNESIUM	10-DEC-07					
Aqueous	S SW6020-NICKEL-DIS	10-DEC-07	250mL Plastic+HNO3				
Aqueous	S SW7470-MERCURY-DIS	11-JUL-07	500mL Plastic+HNO3				
SA2976-5	SLSD01AA	13-JUN-07 08:10	14-JUN-07			03-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	27-JUN-07					
Solid	S SW3050-PREP	10-DEC-07			1		
Solid	S SW6020-ARSENIC	10-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	10-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	10-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	11-JUL-07	50g Glass				
Solid	S TS	13-JUL-07					
SA2976-6	SLSD02AA	13-JUN-07 08:40	14-JUN-07			03-JUL-07	
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S LLOYDKAHN-TOCSOIL	27-JUN-07					
Solid	S SW3050-PREP	10-DEC-07			1		
Solid	S SW6020-ARSENIC	10-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	10-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	10-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	10-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	11-JUL-07	50g Glass				
Solid	S TS	13-JUL-07					

Total Samples: 6

Total Analyses: 68

July 6, 2007

Ms. Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

RE: Katahdin Lab Number: SA2977
Project ID: 04739-003 MCRRF
Project Manager: Mrs. Andrea Colby
Sample Receipt Date(s): June 14, 2007

Dear Ms. Durocher:

Please find enclosed the following information:

- * Report of Analysis (Analytical and/or Field)
- * Quality Control Data Summary
- * Chain of Custody (COC)
- * Login Report

A copy of the Chain of Custody is included in the paginated report. The original COC is attached as an addendum to this report.

Should you have any questions or comments concerning this Report of Analysis, please do not hesitate to contact the project manager listed above. This cover letter is an integral part of the ROA.

We certify that the test results provided in this report meet all the requirements of the NELAC standards unless otherwise noted in an attached technical narrative or in the Report of Analysis.

We appreciate your continued use of our laboratory and look forward to working with you in the future. The following signature indicates technical review and acceptance of the data.

Sincerely,

KATAHDIN ANALYTICAL SERVICES



Authorized Signature

07/06/2007

Date

DATA QUALIFIERS

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
*	Compound recovery outside of quality control limits.
D	Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
B	Organics- Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample. Metals- Indicates the analyte was detected in the sample at a concentration greater than the instrument detection limit, but less than the laboratory's Practical Quantitation Level.
N	Presumptive evidence of a compound based on a mass spectral library search.
A	Indicates that a tentatively identified compound is a suspected aldol-condensation product.
P	Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns.
MCL	Maximum Contaminant Level
NL	No limit
NFL	No Free Liquid Present
FLP	Free Liquid Present
NOD	No Odor Detected

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFBG01AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-001

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.32	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.064	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.064	0.01
7440-47-3	CHROMIUM, TOTAL	0.30			MS	5	0.19	0.12
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.064	0.02
7439-97-6	MERCURY, TOTAL	0.06		N	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	0.05	B		MS	5	0.064	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFBG02AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-002

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.13	U		MS	5	0.38	0.13
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.075	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.075	0.01
7440-47-3	CHROMIUM, TOTAL	0.32			MS	5	0.22	0.14
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.075	0.02
7439-97-6	MERCURY, TOTAL	0.07		N	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	0.06	B		MS	5	0.075	0.03

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG02AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-003

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.10	U		MS	5	0.30	0.10
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.061	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.061	0.01
7440-47-3	CHROMIUM, TOTAL	0.20			MS	5	0.18	0.11
7439-92-1	LEAD, TOTAL	0.02	U		MS	5	0.061	0.02
7439-97-6	MERCURY, TOTAL	0.11		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.03	B		MS	5	0.061	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB01AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-004

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.13	U		MS	5	0.38	0.13
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.076	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.076	0.01
7440-47-3	CHROMIUM, TOTAL	0.27			MS	5	0.23	0.14
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.076	0.02
7439-97-6	MERCURY, TOTAL	0.49		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.03	U		MS	5	0.076	0.03

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB02AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-005

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.10	U		MS	5	0.29	0.10
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.058	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.058	0.01
7440-47-3	CHROMIUM, TOTAL	0.22			MS	5	0.17	0.10
7439-92-1	LEAD, TOTAL	0.02	U		MS	5	0.058	0.02
7439-97-6	MERCURY, TOTAL	0.50		N	CV	1	0.032	0.01
7440-02-0	NICKEL, TOTAL	0.02	U		MS	5	0.058	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG01AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-006

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	U		MS	5	0.36	0.12
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.073	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.073	0.01
7440-47-3	CHROMIUM, TOTAL	0.19	B		MS	5	0.22	0.13
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.073	0.02
7439-97-6	MERCURY, TOTAL	0.14		N	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	0.03	B		MS	5	0.073	0.03

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-007

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.14	U		MS	5	0.40	0.14
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.080	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.080	0.01
7440-47-3	CHROMIUM, TOTAL	0.26			MS	5	0.24	0.14
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.080	0.02
7439-97-6	MERCURY, TOTAL	0.47		N	CV	1	0.034	0.01
7440-02-0	NICKEL, TOTAL	0.03	U		MS	5	0.080	0.03

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB02AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-008

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	U		MS	5	0.34	0.12
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.069	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.069	0.01
7440-47-3	CHROMIUM, TOTAL	0.22			MS	5	0.21	0.12
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.069	0.02
7439-97-6	MERCURY, TOTAL	0.13		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.02	B		MS	5	0.069	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFBG01AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-009

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.14	U		MS	5	0.41	0.14
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.081	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.081	0.01
7440-47-3	CHROMIUM, TOTAL	0.19	B		MS	5	0.24	0.15
7439-92-1	LEAD, TOTAL	0.04	B		MS	5	0.081	0.02
7439-97-6	MERCURY, TOTAL	0.07		N	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	0.03	B		MS	5	0.081	0.03

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFBG02AAF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-010

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	U		MS	5	0.35	0.12
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.069	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.069	0.01
7440-47-3	CHROMIUM, TOTAL	0.17	B		MS	5	0.21	0.12
7439-92-1	LEAD, TOTAL	0.03	B		MS	5	0.069	0.02
7439-97-6	MERCURY, TOTAL	0.08		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.02	B		MS	5	0.069	0.02

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: AJH01AA

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.5

Lab Sample ID: SA2977-011

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.15	U		MS	5	0.45	0.15
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.090	0.01
7440-43-9	CADMIUM, TOTAL	0.06	B		MS	5	0.090	0.01
7440-47-3	CHROMIUM, TOTAL	1.8			MS	5	0.27	0.16
7439-92-1	LEAD, TOTAL	0.16			MS	5	0.090	0.03
7439-97-6	MERCURY, TOTAL	0.02	B	N	CV	1	0.044	0.01
7440-02-0	NICKEL, TOTAL	0.57			MS	5	0.090	0.03

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Raleigh, NC 27616

Lab Sample ID: SA2977-11
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

Sample Description

AJH01AA

<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SL	11-JUN-07	14-JUN-07

<u>Parameter</u>	<u>Result</u>	<u>Adj PQL</u>	<u>Anal. Method</u>	<u>QC.Batch</u>	<u>Anal. Date</u>	<u>Prep. Method</u>	<u>Prep. Date</u>	<u>Analyst</u>	<u>Footnotes</u>
Total Solids	88. %	I	CLP SOW 788	WG40454	25-JUN-07 14:28:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: AJH02AA

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.5

Lab Sample ID: SA2977-012

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.16	U		MS	5	0.46	0.16
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.093	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.093	0.01
7440-47-3	CHROMIUM, TOTAL	0.74			MS	5	0.28	0.17
7439-92-1	LEAD, TOTAL	0.06	B		MS	5	0.093	0.03
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.034	0.01
7440-02-0	NICKEL, TOTAL	0.25			MS	5	0.093	0.03

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Raleigh, NC 27616

Lab Sample ID: SA2977-12
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

Sample Description

AJH02AA

Matrix

SL

Date Sampled

11-JUN-07

Date Received

14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	88. %	1	CLP SOW 788	WG40453	25-JUN-07 14:20:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: RHH01AA

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 50.5

Lab Sample ID: SA2977-013

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.27	U		MS	5	0.78	0.27
7440-41-7	BERYLLIUM, TOTAL	0.02	U		MS	5	0.16	0.02
7440-43-9	CADMIUM, TOTAL	0.04	B		MS	5	0.16	0.02
7440-47-3	CHROMIUM, TOTAL	20.9			MS	5	0.47	0.28
7439-92-1	LEAD, TOTAL	0.15	B		MS	5	0.16	0.05
7439-97-6	MERCURY, TOTAL	0.01	U		CV	1	0.061	0.01
7440-02-0	NICKEL, TOTAL	1.4			MS	5	0.16	0.06

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Raleigh, NC 27616

Lab Sample ID: SA2977-13
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

Sample Description

RHH01AA

Matrix

SL

Date Sampled

11-JUN-07

Date Received

14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	50. %	1	CLP SOW 788	WG40453	25-JUN-07 14:21:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFH01AA-R

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.6

Lab Sample ID: SA2977-014

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.14	U		MS	5	0.40	0.14
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.080	0.01
7440-43-9	CADMIUM, TOTAL	0.02	B		MS	5	0.080	0.01
7440-47-3	CHROMIUM, TOTAL	0.78			MS	5	0.24	0.14
7439-92-1	LEAD, TOTAL	0.22			MS	5	0.080	0.02
7439-97-6	MERCURY, TOTAL	0.02	B	N	CV	1	0.044	0.01
7440-02-0	NICKEL, TOTAL	0.40			MS	5	0.080	0.03

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2977-14
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

Sample Description

LFH01AA-R

Matrix

SL

Date Sampled

12-JUN-07

Date Received

14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	88. %	1	CLP SOW 788	WG40453	25-JUN-07 14:22:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFH01AB-R

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 88.6

Lab Sample ID: SA2977-015

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.14	U		MS	5	0.42	0.14
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.084	0.01
7440-43-9	CADMIUM, TOTAL	0.03	B		MS	5	0.084	0.01
7440-47-3	CHROMIUM, TOTAL	0.84			MS	5	0.25	0.15
7439-92-1	LEAD, TOTAL	0.25			MS	5	0.084	0.03
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.043	0.01
7440-02-0	NICKEL, TOTAL	0.38			MS	5	0.084	0.03

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Raleigh, NC 27616

Lab Sample ID: SA2977-15
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

Sample Description

LFH01AB-R

Matrix

SL

Date Sampled

12-JUN-07

Date Received

14-JUN-07

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	89. %	1	CLP SOW 788	WG40454	25-JUN-07 14:26:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFH02AA-R

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 88.4

Lab Sample ID: SA2977-016

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.16	U		MS	5	0.48	0.16
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.095	0.01
7440-43-9	CADMIUM, TOTAL	0.03	B		MS	5	0.095	0.01
7440-47-3	CHROMIUM, TOTAL	1.4			MS	5	0.28	0.17
7439-92-1	LEAD, TOTAL	0.27			MS	5	0.095	0.03
7439-97-6	MERCURY, TOTAL	0.01	U	N	CV	1	0.045	0.01
7440-02-0	NICKEL, TOTAL	0.41			MS	5	0.095	0.03

Bottle ID: A

Comments:

Report of Analytical Results

Client: Kristen Durocher
 ENSR
 7041 Old Wake Forest Rd.
 Raleigh, NC 27616

Lab Sample ID: SA2977-16
Report Date: 02-JUL-07
Client PO:
Project: 04739-003 MCRRF
SDG: SA2977

<u>Sample Description</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
LFH02AA-R	SL	12-JUN-07	14-JUN-07

<u>Parameter</u>	<u>Result</u>	<u>Adj PQL</u>	<u>Anal. Method</u>	<u>QC.Batch</u>	<u>Anal. Date</u>	<u>Prep. Method</u>	<u>Prep. Date</u>	<u>Analyst</u>	<u>Footnotes</u>
Total Solids	88. %	1	CLP SOW 788	WG40453	25-JUN-07 14:23:00	CLP SOW 788	22-JUN-07	CP	

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG01ABF

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-017

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	U		MS	5	0.36	0.12
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.072	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.072	0.01
7440-47-3	CHROMIUM, TOTAL	0.23			MS	5	0.22	0.13
7439-92-1	LEAD, TOTAL	0.06	B		MS	5	0.072	0.02
7439-97-6	MERCURY, TOTAL	0.12		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.03	B		MS	5	0.072	0.03

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFBG01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-018

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.14	U		MS	5	0.40	0.14
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.081	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.081	0.01
7440-47-3	CHROMIUM, TOTAL	0.50			MS	5	0.24	0.15
7439-92-1	LEAD, TOTAL	0.19			MS	5	0.081	0.02
7439-97-6	MERCURY, TOTAL	0.05		N	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	0.24			MS	5	0.081	0.03

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: EFBG02AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-019

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	B		MS	5	0.30	0.10
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.061	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.061	0.01
7440-47-3	CHROMIUM, TOTAL	0.53			MS	5	0.18	0.11
7439-92-1	LEAD, TOTAL	0.21			MS	5	0.061	0.02
7439-97-6	MERCURY, TOTAL	0.05		N	CV	1	0.032	0.01
7440-02-0	NICKEL, TOTAL	0.29			MS	5	0.061	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG02AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-020

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.33	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.066	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.066	0.01
7440-47-3	CHROMIUM, TOTAL	0.18	B		MS	5	0.20	0.12
7439-92-1	LEAD, TOTAL	0.07			MS	5	0.066	0.02
7439-97-6	MERCURY, TOTAL	0.08		N	CV	1	0.032	0.01
7440-02-0	NICKEL, TOTAL	0.10			MS	5	0.066	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-021

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.32	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.065	0.01
7440-43-9	CADMIUM, TOTAL	0.01	B		MS	5	0.065	0.01
7440-47-3	CHROMIUM, TOTAL	0.26			MS	5	0.19	0.12
7439-92-1	LEAD, TOTAL	0.23			MS	5	0.065	0.02
7439-97-6	MERCURY, TOTAL	0.25		N	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	0.16			MS	5	0.065	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB02AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-022

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.09	U		MS	5	0.27	0.09
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.053	0.01
7440-43-9	CADMIUM, TOTAL	0.03	B		MS	5	0.053	0.01
7440-47-3	CHROMIUM, TOTAL	0.14	B		MS	5	0.16	0.10
7439-92-1	LEAD, TOTAL	0.07			MS	5	0.053	0.02
7439-97-6	MERCURY, TOTAL	0.29		N	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	0.03	B		MS	5	0.053	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG01ABW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-023

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.34	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.067	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.067	0.01
7440-47-3	CHROMIUM, TOTAL	0.28			MS	5	0.20	0.12
7439-92-1	LEAD, TOTAL	0.06	B		MS	5	0.067	0.02
7439-97-6	MERCURY, TOTAL	0.07		N	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	0.11			MS	5	0.067	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-024

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.10	U		MS	5	0.30	0.10
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.060	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.060	0.01
7440-47-3	CHROMIUM, TOTAL	0.21			MS	5	0.18	0.11
7439-92-1	LEAD, TOTAL	0.05	B		MS	5	0.060	0.02
7439-97-6	MERCURY, TOTAL	0.41		N	CV	1	0.027	0.01
7440-02-0	NICKEL, TOTAL	0.08			MS	5	0.060	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB02AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-025

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.13	U		MS	5	0.38	0.13
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.076	0.01
7440-43-9	CADMIUM, TOTAL	0.01	B		MS	5	0.076	0.01
7440-47-3	CHROMIUM, TOTAL	0.78			MS	5	0.23	0.14
7439-92-1	LEAD, TOTAL	0.1			MS	5	0.076	0.02
7439-97-6	MERCURY, TOTAL	0.05		N	CV	1	0.034	0.01
7440-02-0	NICKEL, TOTAL	0.36			MS	5	0.076	0.03

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFBG01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-026

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.12	U		MS	5	0.34	0.12
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.068	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.068	0.01
7440-47-3	CHROMIUM, TOTAL	0.37			MS	5	0.20	0.12
7439-92-1	LEAD, TOTAL	0.04	B		MS	5	0.068	0.02
7439-97-6	MERCURY, TOTAL	0.03	B	N	CV	1	0.029	0.01
7440-02-0	NICKEL, TOTAL	0.13			MS	5	0.068	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: LFBG02AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-027

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.33	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.066	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.066	0.01
7440-47-3	CHROMIUM, TOTAL	0.20			MS	5	0.20	0.12
7439-92-1	LEAD, TOTAL	0.07			MS	5	0.066	0.02
7439-97-6	MERCURY, TOTAL	0.03		N	CV	1	0.024	0.01
7440-02-0	NICKEL, TOTAL	0.16			MS	5	0.066	0.02

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services

Client Field ID: SLBG01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-028

Concentration Units : mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7440-38-2	ARSENIC, TOTAL	0.11	U		MS	5	0.33	0.11
7440-41-7	BERYLLIUM, TOTAL	0.01	U		MS	5	0.065	0.01
7440-43-9	CADMIUM, TOTAL	0.01	U		MS	5	0.065	0.01
7440-47-3	CHROMIUM, TOTAL	0.19	B		MS	5	0.20	0.12
7439-92-1	LEAD, TOTAL	0.07			MS	5	0.065	0.02
7439-97-6	MERCURY, TOTAL	0.07		N	CV	1	0.025	0.01
7440-02-0	NICKEL, TOTAL	0.09			MS	5	0.065	0.02

Bottle ID: A

Comments:

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXF26ICS0

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XF26ICS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ARSENIC	0.170	U
BERYLLIUM	-0.014	B
CADMIUM	0.010	U
CHROMIUM	0.298	B
LEAD	0.030	U
NICKEL	0.030	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXF26ICS0

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XF26ICS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	289.0	262.17	90.7	81	119
BERYLLIUM	54.4	47.92	88.1	83	117
CADMIUM	101.0	94.89	94.0	82	118
CHROMIUM	224.0	214.29	95.7	80	120
LEAD	158.0	142.46	90.2	82	118
NICKEL	120.0	108.46	90.4	83	118

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXF26ICS1

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XF26ICS1

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ARSENIC	0.170	U
BERYLLIUM	0.010	U
CADMIUM	0.010	U
CHROMIUM	0.180	U
LEAD	0.040	B
NICKEL	0.035	B

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXF26ICS1

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XF26ICS1

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ARSENIC	289.0	271.10	93.8	81	119
BERYLLIUM	54.4	55.10	101.3	83	117
CADMIUM	101.0	99.10	98.1	82	118
CHROMIUM	224.0	211.98	94.6	80	120
LEAD	158.0	149.92	94.9	82	118
NICKEL	120.0	112.24	93.5	83	118

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXG02HGS0

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XG02HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXG02HGS0

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XG02HGS0

Concentration Units : mg/Kgdrywt					
Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	5.18	99.6	66	133

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services**Sample ID:** PBSXG03HGS1**Matrix:** SOIL**SDG Name:** SA2977**QC Batch ID:** XG03HGS1**Concentration Units :** mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services**Sample ID:** LCSSXG03HGS1**Matrix:** SOIL**SDG Name:** SA2977**QC Batch ID:** XG03HGS1

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	5.65	108.7	66	133

3P
PREPARATION BLANKS

Lab Name: Katahdin Analytical Services

Sample ID: PBSXG03HGS2

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XG03HGS2

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services

Sample ID: LCSSXG03HGS2

Matrix: SOIL

SDG Name: SA2977

QC Batch ID: XG03HGS2

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	5.54	106.5	66	133

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAFS

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-007S

Concentration Units : mg/Kgdrywt

Analyte	Spiked		Sample		Spike Added	%R	Q	Control Limits (%R)			
	Sample	Result	C	Result				C	Low	High	M
ARSENIC, TOTAL		35.7829		0.0207	U	38.76	92.3		75	125	MS
BERYLLIUM, TOTAL		3.4760		-0.0121	U	3.88	89.6		75	125	MS
CADMIUM, TOTAL		19.0465		-0.0083	U	19.38	98.3		75	125	MS
CHROMIUM, TOTAL		14.7442		0.2584		15.5	93.5		75	125	MS
LEAD, TOTAL		35.0930		0.0273	B	38.76	90.5		75	125	MS
MERCURY, TOTAL		0.8954		0.4667		0.37	115.9		75	125	CV
NICKEL, TOTAL		36.6744		0.0250	U	38.76	94.6		75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAFS

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-007P

Concentration Units : mg/Kgdrywt

Analyte	Spiked		Sample		Spike Added	%R	Q	Control Limits (%R)			
	Sample	Result C	Result	C				Low	High	M	
ARSENIC, TOTAL		38.1935		0.0207	U	40.32	94.7		75	125	MS
BERYLLIUM, TOTAL		3.6637		-0.0121	U	4.03	90.9		75	125	MS
CADMIUM, TOTAL		20.1290		-0.0083	U	20.16	99.8		75	125	MS
CHROMIUM, TOTAL		15.6290		0.2584		16.13	95.3		75	125	MS
LEAD, TOTAL		37.3468		0.0273	B	40.32	92.6		75	125	MS
MERCURY, TOTAL		0.8523		0.4667		0.36	107.1		75	125	CV
NICKEL, TOTAL		38.5645		0.0250	U	40.32	95.6		75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services
Matrix: TISSUE
Percent Solids: 0.00

Client Field ID: LFLMB01AAF
SDG Name: SA2977
Lab Sample ID: SA2977-007

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		35.7829		38.1935		6.5		MS
BERYLLIUM, TOTAL	0.78	3.4760		3.6637		5.3		MS
CADMIUM, TOTAL		19.0465		20.1290		5.5		MS
CHROMIUM, TOTAL		14.7442		15.6290		5.8		MS
LEAD, TOTAL		35.0930		37.3468		6.2		MS
MERCURY, TOTAL		0.8954		0.8523		4.9		CV
NICKEL, TOTAL		36.6744		38.5645		5.0		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAFL

Matrix: TISSUE

SDG Name: SA2977

Lab Sample ID: SA2977-007L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	0.05	U		0.70	U			MS
BERYLLIUM, TOTAL	-0.03	U		-0.15	U			MS
CADMIUM, TOTAL	-0.02	U		-0.02	U			MS
CHROMIUM, TOTAL	0.65	B		0.71	U	100.0		MS
LEAD, TOTAL	0.07	B		0.02	U	100.0		MS
NICKEL, TOTAL	0.06	U		0.08	U			MS

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: AJH01AAS

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.5

Lab Sample ID: SA2977-011S

Concentration Units : mg/Kgdrywt

Analyte	Spiked		C	Sample		C	Spike Added	%R	Q	Control Limits (%R)		M
	Sample	Result		Result	Low					High		
ARSENIC, TOTAL		39.6418		0.0714	U		44.99	88.1		75	125	MS
BERYLLIUM, TOTAL		4.1918		0.0004	U		4.5	93.2		75	125	MS
CADMIUM, TOTAL		20.5497		0.0657	B		22.49	91.1		75	125	MS
CHROMIUM, TOTAL		17.9495		1.7531			17.99	90.0		75	125	MS
LEAD, TOTAL		39.3629		0.1561			44.99	87.1		75	125	MS
MERCURY, TOTAL		0.2512		0.0193	B		0.46	50.4	N	75	125	CV
NICKEL, TOTAL		40.5685		0.5695			44.99	88.9		75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: AJH01AAS

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.5

Lab Sample ID: SA2977-011P

Concentration Units : mg/Kgdrywt

Analyte	Spiked		C	Sample		Spike	%R	Q	Control Limits (%R)			
	Sample	Result		Result	C				Added	Low	High	M
ARSENIC, TOTAL		40.3230		0.0714	U		44.63	90.3		75	125	MS
BERYLLIUM, TOTAL		3.9645		0.0004	U		4.46	88.9		75	125	MS
CADMIUM, TOTAL		20.7998		0.0657	B		22.32	92.9		75	125	MS
CHROMIUM, TOTAL		17.3183		1.7531			17.85	87.2		75	125	MS
LEAD, TOTAL		39.9391		0.1561			44.63	89.1		75	125	MS
MERCURY, TOTAL		0.4223		0.0193	B		0.44	91.6		75	125	CV
NICKEL, TOTAL		39.2250		0.5695			44.63	86.6		75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services

Client Field ID: AJH01AA

Matrix: SOIL

SDG Name: SA2977

Percent Solids: 87.5

Lab Sample ID: SA2977-011

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		39.6418		40.3230		1.7		MS
BERYLLIUM, TOTAL	0.9	4.1918		3.9645		5.6		MS
CADMIUM, TOTAL		20.5497		20.7998		1.2		MS
CHROMIUM, TOTAL		17.9495		17.3183		3.6		MS
LEAD, TOTAL		39.3629		39.9391		1.5		MS
MERCURY, TOTAL		0.2512		0.4223		50.8	*	CV
NICKEL, TOTAL		40.5685		39.2250		3.4		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: AJH01AAL

Matrix: SOIL

SDG Name: SA2977

Lab Sample ID: SA2977-011L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	0.16	U		0.61	U			MS
BERYLLIUM, TOTAL	0.00	U		-0.06	U			MS
CADMIUM, TOTAL	0.15	B		0.12	U	100.0		MS
CHROMIUM, TOTAL	3.90			3.68	B	5.6		MS
LEAD, TOTAL	0.35	B		0.29	U	100.0		MS
MERCURY, TOTAL	0.09	B		-0.01	U	100.0		CV
NICKEL, TOTAL	1.27			1.25	B	1.6		MS

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB02AAWS

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-022S

Concentration Units : mg/Kgdrywt

Analyte	Spiked		Sample		Spike	%R	Q	Control Limits (%R)		M
	Sample	Result	C	Result				Low	High	
ARSENIC, TOTAL		24.2086		0.0412	U	26.74	90.5	75	125	MS
BERYLLIUM, TOTAL		2.1150		-0.0077	U	2.67	79.2	75	125	MS
CADMIUM, TOTAL		12.2353		0.0295	B	13.37	91.3	75	125	MS
CHROMIUM, TOTAL		10.2781		0.1410	B	10.7	94.7	75	125	MS
LEAD, TOTAL		23.4813		0.0737		26.74	87.5	75	125	MS
NICKEL, TOTAL		24.6578		0.0308	B	26.74	92.1	75	125	MS

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB02AAWS

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-022P

Concentration Units : mg/Kgdrywt

Analyte	Spiked		C	Sample		C	Spike Added	%R	Q	Control Limits (%R)		
	Sample	Result		Result	Low					High	M	
ARSENIC, TOTAL		24.2819		0.0412	U		26.6	91.3		75	125	MS
BERYLLIUM, TOTAL		2.2160		-0.0077	U		2.66	83.3		75	125	MS
CADMIUM, TOTAL		12.7926		0.0295	B		13.3	96.0		75	125	MS
CHROMIUM, TOTAL		10.4521		0.1410	B		10.64	96.9		75	125	MS
LEAD, TOTAL		23.8723		0.0737			26.6	89.5		75	125	MS
NICKEL, TOTAL		24.8032		0.0308	B		26.6	93.1		75	125	MS

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services
Matrix: TISSUE
Percent Solids: 0.00

Client Field ID: SLLMB02AAW
SDG Name: SA2977
Lab Sample ID: SA2977-022

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ARSENIC, TOTAL		24.2086		24.2819		0.3		MS
BERYLLIUM, TOTAL	0.53	2.1150		2.2160		4.7		MS
CADMIUM, TOTAL		12.2353		12.7926		4.5		MS
CHROMIUM, TOTAL		10.2781		10.4521		1.7		MS
LEAD, TOTAL		23.4813		23.8723		1.7		MS
NICKEL, TOTAL		24.6578		24.8032		0.6		MS

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: SLLMB02AAWL

Matrix: TISSUE

SDG Name: SA2977

Lab Sample ID: SA2977-022L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
ARSENIC, TOTAL	0.15	U		0.48	U			MS
BERYLLIUM, TOTAL	-0.03	U		-0.15	U			MS
CADMIUM, TOTAL	0.11	B		0.08	U	100.0		MS
CHROMIUM, TOTAL	0.53	B		0.45	U	100.0		MS
LEAD, TOTAL	0.28	B		0.17	U	100.0		MS
NICKEL, TOTAL	0.12	B		0.12	U	100.0		MS

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services
Matrix: TISSUE
Percent Solids: 0.00

Client Field ID: LFLMB01AAWS
SDG Name: SA2977
Lab Sample ID: SA2977-024S

Concentration Units : mg/Kgdrywt

Analyte	Spiked		C	Sample		C	Spike Added	%R	Q	Control Limits (%R)		
	Sample	Result		Result	Low					High	M	
MERCURY, TOTAL		0.5953			0.4142		0.26	69.7	N	75	125	CV

Comments:

5A
SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAWS

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-024P

Concentration Units : mg/Kgdrywt

Analyte	Spiked		Sample Result	C	Spike Added	%R	Q	Control Limits (%R)		
	Sample	Result						Low	High	M
MERCURY, TOTAL		0.6017		0.4142	0.26	72.1	N	75	125	CV

Comments:

5D
SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAW

Matrix: TISSUE

SDG Name: SA2977

Percent Solids: 0.00

Lab Sample ID: SA2977-024

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
MERCURY, TOTAL		0.5953		0.6017		1.1		CV

Comments:

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Client Field ID: LFLMB01AAWL

Matrix: TISSUE

SDG Name: SA2977

Lab Sample ID: SA2977-024L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution	Result	C	% Difference	Q	M
MERCURY, TOTAL	3.06			3.02		1.3		CV

Quality Control Report

Blank Sample Summary Report

Total Solids

<u>Samp Type</u>	<u>QC Batch</u>	<u>Anal. Method</u>	<u>Anal. Date</u>	<u>Prep. Date</u>	<u>Result</u>	<u>PQL</u>
MBLANK	WG40453	CLP SOW 788	25-JUN-07	22-JUN-07	U 1 %	1 %
MBLANK	WG40454	CLP SOW 788	25-JUN-07	22-JUN-07	U 1 %	1 %

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG40453-2	LCS	WG40453	25-JUN-07	22-JUN-07	%	90	90.	100	80-120	
WG40454-2	LCS	WG40454	25-JUN-07	22-JUN-07	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG40454-3	SA2977-15	WG40454	25-JUN-07	%	89.	87.	1	20
WG40454-4	SA2977-11	WG40454	25-JUN-07	%	88.	87.	1	20

SA2977 FISH SAMPLES

<u>Client ID</u>	<u>Lab Sample ID</u>	<u>Weight</u>	<u>Date/Time</u>	<u>Initials</u>	<u>Comments</u>
EFBG01AA	SA2977-1	37.80g	10/21/07 10:00	TR	Fillet
	SA2977-18	298.36g	10:05		Remainder
EFBG02AA	SA2977-2	29.43g	10:10		Fillet
	SA2977-19	282.69g	10:15		Remainder
SLBG02AA	SA2977-3	105.93g	10:20		Fillet
	SA2977-20	435.42g	10:25		Remainder
SLLMB01AA	SA2977-4	76.54g	10:30		Fillet
	SA2977-21	252.06g	10:35		Remainder
SLLMB02AA	SA2977-5	99.74g	10:40		Fillet
	SA2977-22	747.60g	10:45		Remainder
SLBG01AA/B	SA2977-6,17	170.56g	10:50		Fillet
	SA2977-28,23	1118.83g	10:55		Remainder
LFLMB01AA	SA2977-7	168.46g	11:00		Fillet
	SA2977-24	2028.23g	11:05		Remainder
LFLMB02AA	SA2977-8	53.18g	11:10		Fillet
	SA2977-25	234.51g	11:15		Remainder
LFBG01AA	SA2977-9	120.89g	11:20		Fillet
	SA2977-26	534.00g	11:25		Remainder
LFBG02AA	SA2977-10	86.50g	11:30		Fillet
	SA2977-27	554.02g	11:35	Y	Remainder

Client: <u>ENSR</u>	KAS PM: <u>Asc</u>	Sampled By: <u>Client</u>
Project:	KIMS Entry By: <u>DS</u>	Delivered By: <u>FedEx</u>
KAS Work Order#: <u>SA2977</u>	KIMS Review By: <u>A✓</u>	Received By: <u>DS</u>
SDG #:	Cooler: <u>2</u> of <u>3</u> (<u>red - loose</u> <u>leaf c.s.</u>)	Date/Time Rec.: <u>06/14/07 1005</u>

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	X				
2. Chain of Custody present in cooler?	X				
3. Chain of Custody signed by client?	X				
4. Chain of Custody matches samples?	X				
5. Temperature Blanks present?		X			Temp (°C):
6. Samples received at < 6 °C w/o freezing? Ice or ice packs present? <u>⊕</u> or <u>N dry ice</u>	X				Cooler temp. (°C): (if no temp blank) <u>-0.1</u>
7. Volatiles free of headspace?				X	
Aqueous: No bubble larger than a pea				X	
Soil/Sediment:				X	
Received in airtight container?				X	
Received in methanol?				X	
Methanol covering soil?				X	
8. Trip Blank present in cooler?				X	
9. Proper sample containers and volume?	X				
10. Samples within hold time upon receipt?	X				
11. Aqueous samples properly preserved?				X	
Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				X	
Sulfide – >9				X	
Cyanide – pH >12				X	
12. Corrective Action Report Filed?				✓	

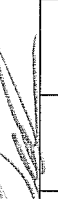
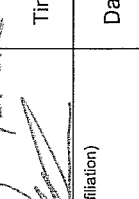
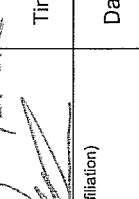
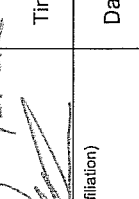
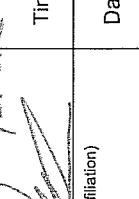
* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments

Client: <u>ENSK</u>	KAS PM: <u>ASL</u>	Sampled By: <u>Client</u>
Project:	KIMS Entry By: <u>DS</u>	Delivered By: <u>FedEx</u>
KAS Work Order#: <u>SA2978</u>	KIMS Review By: <u>[Signature]</u>	Received By: <u>DS</u>
SDG #:	Cooler: <u>3</u> of <u>3</u> (<u>FedEx review</u> <u>US</u>)	Date/Time Rec.: <u>06/14/05 1005</u>


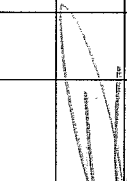

Receipt Criteria	Y	N	EX*	NA	Comments and/or Resolution
1. Custody seals present / intact?	X				
2. Chain of Custody present in cooler?	X				
3. Chain of Custody signed by client?	X				
4. Chain of Custody matches samples?	X				
5. Temperature Blanks present?		X			Temp (°C):
6. Samples received at < 6 °C w/o freezing? Ice or ice packs present? <u>Y</u> or <u>N</u> <u>dry ice</u>	X				Cooler temp. (°C): (if no temp blank) <u>1.6</u>
7. Volatiles free of headspace?				X	
Aqueous: No bubble larger than a pea				X	
Soil/Sediment:				X	
Received in airtight container?				X	
Received in methanol?				X	
Methanol covering soil?				X	
8. Trip Blank present in cooler?				X	
9. Proper sample containers and volume?	X				
10. Samples within hold time upon receipt?	X				
11. Aqueous samples properly preserved? Metals, COD, NH3, TKN, O/G, phenol, TPO4, N+N, TOC, DRO, TPH – pH <2				X	
Sulfide - >9				X	
Cyanide – pH >12				X	
12. Corrective Action Report Filed?				✓	

* Log-In Notes to Exceptions: document any problems with samples or discrepancies or pH adjustments


CHAIN OF CUSTODY RECORD

Client/Project Name: MCRRF				Project Location: Dickerson MT				Analysis Requested			
Project Number: 04739-003				Field Logbook No.:							
Sampler (Print Name)/(Affiliation): Kristen Duvacher/JENSR				Chain of Custody Tape No.: 1003 & 1004							
Signature: 				Send Results/Report to: Kristen Duvacher							
Field Sample No./ Identification	Date	Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	Field Filtered	Lab I.D.	Remarks	
EFB601AA	6/12	1300		x	Zip Loc	fish	0.c	N/A		see in 1003 with w/other fish	
EFB602AA	6/12	1415		x	Zip Loc	fish	0.c				
SLB603AA	6/13	0845		x	Zip Loc						
SLLM601AA		0900	x		Zip Loc						
SLLM602AA		1100	x		Zip Loc						
SLB601AA/AB		0730		x	Zip Loc					see in 1003 with w/other fish	
<p>Note: after homogenization, split metals sample & use as SLB601AA & SLB601AB (duplicates)</p>											
<p>Relinquished by: (Print Name)/(Affiliation) Date: 06/13/07 Time: 1800 Signature: </p> <p>Relinquished by: (Print Name)/(Affiliation) Date: 06/13/07 Time: 1800 Signature: </p> <p>Relinquished by: (Print Name)/(Affiliation) Date: 06/13/07 Time: 1800 Signature: </p> <p>Relinquished by: (Print Name)/(Affiliation) Date: 06/13/07 Time: 1800 Signature: </p>											
<p>Analytical Laboratory (Destination): Katchadin Analytical 600 Technology Way Scarborough ME 04074 207 874 2400</p>											

CHAIN OF CUSTODY RECORD

Client/Project Name: MCRF				Project Location: Dickerson MD				Analysis Requested			
Project Number: 04739-003				Field Logbook No.:							
Sampler (Print Name)/(Affiliation): Kristen Durocher / ENSR				Chain of Custody Tape No.: 1001 # 27059							
Signature: 				Send Results/Report to: Kristen Durocher							
Field Sample No./ Identification	Date	Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	Field Filled	Remove Filter	Lab I.D.	Remarks
LFLMB01AA	06/11	1100	X		2x ZipLoc	fish	0°C	N/A	X	X	X
LFLMB02AA	06/11	1100	X		1x ZipLoc	fish	0°C	N/A	X	X	X
LFBG01AA	06/11	1100		X	1x ZipLoc	fish	0°C	N/A	X	X	X
LFBG02AA	06/11	1100		X	1x ZipLoc	fish	0°C	N/A	X	X	X
Note: Use LFLMB01AA for metals MS/MSD											
											
Relinquished by: (Print Name)/(Affiliation) Kristen Durocher / ENSR				Relinquished by: (Print Name)/(Affiliation) Fed Ex				Analytical Laboratory (Destination): Katahdin Analytical			
Date: 06/13/07				Date: 847206245119				600 Technology Way			
Time: 1800				Signature:				Scarborough ME 04074			
Signature: 				Relinquished by: (Print Name)/(Affiliation)				207-874-2400			
Date:				Date: 06/14/07							
Time:				Time: 1605							
Signature:				Relinquished by: (Print Name)/(Affiliation)							
Date:				Date:							
Time:				Time:							

Attachment to COC # 42713

Kristen Durocher / ENSR, Sampler


06/11/07

Fish preparation:

- 1) Please remove fillet from fish & create boneless & skinless fillet sample named "Sample ID" F (eg LFLMBO1AA → fillet → LFLMBO1AAF)
- 2) Weigh & record & report fillet sample and offal (including skin from fillet)
- 3) offal + skin = "Sample ID" W (eg LFLMBO1AAW)
- 4) Process/homogenize Sample ID F & Sample ID W as unique samples
- 5) subsample slurry & ship under COC to Axys Analytical

Jun. 15, 2007

07:44 AM

Login Number: SA2977

Account: ENSR002

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ENSR

Project:

Login Information

ANALYSIS INSTRUCTIONS : Need to weigh and record fillet and then weigh and record whole fish which is remaining fish and skin after fillet is removed.

CHECK NO. :

CLIENT PO# :

COOLER TEMPERATURE : -0.1

DELIVERY SERVICES : FEDEX

EDD FORMAT : WEST-XLS

MAIL DATE :

PM : AJC

PROJECT NAME : 04739-003 MCRRF

QC LEVEL : II+

REGULATORY LIST :

REPORT INSTRUCTIONS : Rpt to MDL. Include copy of rpt on CD.

SDG ID :

SDG STATUS :

Primary Report Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Primary Invoice Address:

Kristen Durocher
ENSR
7041 Old Wake Forest Rd.
Suite 103
Raleigh, NC 27616

Report CC Addresses:

Invoice CC Addresses:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR Date	Due Date	Comments
SA2977-1	EFBG01AAF	12-JUN-07 13:00	14-JUN-07		03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count		
Tissue	S SW3050-PREP	09-DEC-07		3		
Tissue	S SW6020-ARSENIC	09-DEC-07				
Tissue	S SW6020-BERYLLIUM	09-DEC-07				
Tissue	S SW6020-CADMIUM	09-DEC-07				
Tissue	S SW6020-CHROMIUM	09-DEC-07				
Tissue	S SW6020-LEAD	09-DEC-07				
Tissue	S SW6020-NICKEL	09-DEC-07				
Tissue	S SW7471-MERCURY	10-JUL-07				
Tissue	S TISSUE-PREP					
SA2977-2	EFBG02AAF	12-JUN-07 14:15	14-JUN-07		03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count		
Tissue	S SW3050-PREP	09-DEC-07		3		
Tissue	S SW6020-ARSENIC	09-DEC-07				
Tissue	S SW6020-BERYLLIUM	09-DEC-07				
Tissue	S SW6020-CADMIUM	09-DEC-07				
Tissue	S SW6020-CHROMIUM	09-DEC-07				
Tissue	S SW6020-LEAD	09-DEC-07				
Tissue	S SW6020-NICKEL	09-DEC-07				
Tissue	S SW7471-MERCURY	10-JUL-07				
Tissue	S TISSUE-PREP					
SA2977-3	SLBG02AAF	13-JUN-07 08:45	14-JUN-07		03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count		
Tissue	S SW3050-PREP	10-DEC-07		3		
Tissue	S SW6020-ARSENIC	10-DEC-07				
Tissue	S SW6020-BERYLLIUM	10-DEC-07				
Tissue	S SW6020-CADMIUM	10-DEC-07				
Tissue	S SW6020-CHROMIUM	10-DEC-07				
Tissue	S SW6020-LEAD	10-DEC-07				
Tissue	S SW6020-NICKEL	10-DEC-07				
Tissue	S SW7471-MERCURY	11-JUL-07				
Tissue	S TISSUE-PREP					

Login Number: SA2977

Account: ENSR002

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Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	Verbal PR Date	Due Date	Comments
SA2977-4	SLLMB01AAF	13-JUN-07 09:00	14-JUN-07		03-JUL-07	fillet
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07		3		
Tissue	S SW6020-ARSENIC	10-DEC-07				
Tissue	S SW6020-BERYLLIUM	10-DEC-07				
Tissue	S SW6020-CADMIUM	10-DEC-07				
Tissue	S SW6020-CHROMIUM	10-DEC-07				
Tissue	S SW6020-LEAD	10-DEC-07				
Tissue	S SW6020-NICKEL	10-DEC-07				
Tissue	S SW7471-MERCURY	11-JUL-07				
Tissue	S TISSUE-PREP					
SA2977-5	SLLMB02AAF	13-JUN-07 11:00	14-JUN-07		03-JUL-07	fillet
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07		3		
Tissue	S SW6020-ARSENIC	10-DEC-07				
Tissue	S SW6020-BERYLLIUM	10-DEC-07				
Tissue	S SW6020-CADMIUM	10-DEC-07				
Tissue	S SW6020-CHROMIUM	10-DEC-07				
Tissue	S SW6020-LEAD	10-DEC-07				
Tissue	S SW6020-NICKEL	10-DEC-07				
Tissue	S SW7471-MERCURY	11-JUL-07				
Tissue	S TISSUE-PREP					
SA2977-6	SLBG01AAF	13-JUN-07 07:30	14-JUN-07		03-JUL-07	fillet. Field dup that goes with SA2977-17 after prep.
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07		3		
Tissue	S SW6020-ARSENIC	10-DEC-07				
Tissue	S SW6020-BERYLLIUM	10-DEC-07				
Tissue	S SW6020-CADMIUM	10-DEC-07				
Tissue	S SW6020-CHROMIUM	10-DEC-07				
Tissue	S SW6020-LEAD	10-DEC-07				
Tissue	S SW6020-NICKEL	10-DEC-07				
Tissue	S SW7471-MERCURY	11-JUL-07				
Tissue	S TISSUE-PREP					
SA2977-7	LFLMB01AAF	11-JUN-07 11:00	14-JUN-07		03-JUL-07	MS/MSD on metals. fillet
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>	<i>Bottle Count</i>		
Solid	S MS/MSD-METALS					
Tissue	S SW3050-PREP	08-DEC-07		3		
Tissue	S SW6020-ARSENIC	08-DEC-07				
Tissue	S SW6020-BERYLLIUM	08-DEC-07				
Tissue	S SW6020-CADMIUM	08-DEC-07				
Tissue	S SW6020-CHROMIUM	08-DEC-07				
Tissue	S SW6020-LEAD	08-DEC-07				
Tissue	S SW6020-NICKEL	08-DEC-07				
Tissue	S SW7471-MERCURY	09-JUL-07				
Tissue	S TISSUE-PREP					

Jun. 15, 2007

07:44 AM

Login Number: SA2977

Account: ENSR002

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Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-8	LFLMB02AAF	11-JUN-07 11:00	14-JUN-07			03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count			
Tissue	S SW3050-PREP	08-DEC-07		3			
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-9	LFBG01AAF	11-JUN-07 11:00	14-JUN-07			03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count			
Tissue	S SW3050-PREP	08-DEC-07		3			
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-10	LFBG02AAF	11-JUN-07 11:00	14-JUN-07			03-JUL-07	fillet
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count			
Tissue	S SW3050-PREP	08-DEC-07		3			
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-11	AJH01AA	11-JUN-07 08:50	14-JUN-07			03-JUL-07	MS/MSD. Hay
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count			
Solid	S MISCELLANEOUS						
Solid	S MS/MSD-METALS						
Solid	S SW3050-PREP	08-DEC-07		3			
Solid	S SW6020-ARSENIC	08-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	08-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	08-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	09-JUL-07	50g Glass				
Solid	S TS	11-JUL-07					

Login Number: SA2977

Account: ENSR002

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Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-12	AJH02AA	11-JUN-07 08:55	14-JUN-07			03-JUL-07	Hay
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MISCELLANEOUS				1		
Solid	S SW3050-PREP	08-DEC-07					
Solid	S SW6020-ARSENIC	08-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	08-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	08-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	09-JUL-07	50g Glass				
Solid	S TS	11-JUL-07					
SA2977-13	RHH01AA	11-JUN-07 09:45	14-JUN-07			03-JUL-07	Hay
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MISCELLANEOUS				1		
Solid	S SW3050-PREP	08-DEC-07					
Solid	S SW6020-ARSENIC	08-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	08-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	08-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	08-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	09-JUL-07	50g Glass				
Solid	S TS	11-JUL-07					
SA2977-14	LFH01AA-R	12-JUN-07 09:50	14-JUN-07			03-JUL-07	Hay
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MISCELLANEOUS				1		
Solid	S SW3050-PREP	09-DEC-07					
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					
SA2977-15	LFH01AB-R	12-JUN-07 09:50	14-JUN-07			03-JUL-07	Hay
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MISCELLANEOUS				1		
Solid	S SW3050-PREP	09-DEC-07					
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					

Login Number: SA2977

Account: ENSR002

NoWeb

ENSR

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-16	LFH02AA-R	12-JUN-07 09:55	14-JUN-07			03-JUL-07	Hay
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MISCELLANEOUS						
Solid	S SW3050-PREP	09-DEC-07			1		
Solid	S SW6020-ARSENIC	09-DEC-07	1000mL Plastic				
Solid	S SW6020-BERYLLIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CADMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-CHROMIUM	09-DEC-07	1000mL Plastic				
Solid	S SW6020-LEAD	09-DEC-07	1000mL Plastic				
Solid	S SW6020-NICKEL	09-DEC-07	1000mL Plastic				
Solid	S SW7471-MERCURY	10-JUL-07	50g Glass				
Solid	S TS	12-JUL-07					
SA2977-17	SLBG01ABF	13-JUN-07 07:30	14-JUN-07			03-JUL-07	Fillet. Field duplicate that goes with SA2977-6 after prep.
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07			3		
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-18	EFBG01AAW	12-JUN-07 13:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	09-DEC-07			3		
Tissue	S SW6020-ARSENIC	09-DEC-07					
Tissue	S SW6020-BERYLLIUM	09-DEC-07					
Tissue	S SW6020-CADMIUM	09-DEC-07					
Tissue	S SW6020-CHROMIUM	09-DEC-07					
Tissue	S SW6020-LEAD	09-DEC-07					
Tissue	S SW6020-NICKEL	09-DEC-07					
Tissue	S SW7471-MERCURY	10-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-19	EFBG02AAW	12-JUN-07 14:15	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	09-DEC-07			3		
Tissue	S SW6020-ARSENIC	09-DEC-07					
Tissue	S SW6020-BERYLLIUM	09-DEC-07					
Tissue	S SW6020-CADMIUM	09-DEC-07					
Tissue	S SW6020-CHROMIUM	09-DEC-07					
Tissue	S SW6020-LEAD	09-DEC-07					
Tissue	S SW6020-NICKEL	09-DEC-07					
Tissue	S SW7471-MERCURY	10-JUL-07					
Tissue	S TISSUE-PREP						

Login Number: SA2977

Account: ENSR002

NoWeb

ENSR

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-20	SLBG02AAW	13-JUN-07 08:45	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07			3		
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-21	SLLMB01AAW	13-JUN-07 09:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07			3		
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-22	SLLMB02AAW	13-JUN-07 11:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07			3		
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-23	SLBG01ABW	13-JUN-07 07:30	14-JUN-07			03-JUL-07	whole. Field dup that goes with SA2977-28 after prep.
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	10-DEC-07			3		
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						

Login Number: SA2977

Account: ENSR002

NoWeb

ENSR

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-24	LFLMB01AAW	11-JUN-07 11:00	14-JUN-07			03-JUL-07	whole. MS/MSD.
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Solid	S MS/MSD-METALS						
Tissue	S SW3050-PREP	08-DEC-07			3		
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-25	LFLMB02AAW	11-JUN-07 11:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	08-DEC-07			3		
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-26	LFBG01AAW	11-JUN-07 11:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	08-DEC-07			3		
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						
SA2977-27	LFBG02AAW	11-JUN-07 11:00	14-JUN-07			03-JUL-07	whole
<i>Matrix</i>	<i>Product</i>	<i>Hold Date (shortest)</i>	<i>Bottle Type</i>		<i>Bottle Count</i>		
Tissue	S SW3050-PREP	08-DEC-07			3		
Tissue	S SW6020-ARSENIC	08-DEC-07					
Tissue	S SW6020-BERYLLIUM	08-DEC-07					
Tissue	S SW6020-CADMIUM	08-DEC-07					
Tissue	S SW6020-CHROMIUM	08-DEC-07					
Tissue	S SW6020-LEAD	08-DEC-07					
Tissue	S SW6020-NICKEL	08-DEC-07					
Tissue	S SW7471-MERCURY	09-JUL-07					
Tissue	S TISSUE-PREP						

Login Number: SA2977

Account: ENSR002

NoWeb

ENSR

Project:

Laboratory Sample ID	Client Sample Number	Collect Date/Time	Receive Date	PR	Verbal Date	Due Date	Comments
SA2977-28	SLBG01AAW	13-JUN-07 07:30	14-JUN-07			03-JUL-07	whole. Field dup that goes with SA2977-23 after prep.
Matrix	Product	Hold Date (shortest)	Bottle Type	Bottle Count			
Tissue	S SW3050-PREP	10-DEC-07		3			
Tissue	S SW6020-ARSENIC	10-DEC-07					
Tissue	S SW6020-BERYLLIUM	10-DEC-07					
Tissue	S SW6020-CADMIUM	10-DEC-07					
Tissue	S SW6020-CHROMIUM	10-DEC-07					
Tissue	S SW6020-LEAD	10-DEC-07					
Tissue	S SW6020-NICKEL	10-DEC-07					
Tissue	S SW7471-MERCURY	11-JUL-07					
Tissue	S TISSUE-PREP						

Total Samples: 28

Total Analyses: 261

Appendix E

Screening levels

Appendix E

Screening Benchmarks

E.1 Surface Water

E.1.1 Maryland Toxic Substances Criteria for Ambient Surface Waters

Maryland Toxic Substances Criteria for Ambient Surface Waters (Table F-1) were developed to protect human health and aquatic life. For the purposes of this report, human health fish consumption values and chronic freshwater aquatic life values were used. The human health fish consumption advisories were derived to protect the “wholesomeness of fish for human consumption” whereas the aquatic life chronic values were derived to “protect freshwater life from toxicity impacts” (Maryland DOE Title 26 Subtitle 8). The toxic criteria for metals are based on dissolved metals concentrations; comparison of the total recoverable metals concentrations in surface water samples to these values is highly conservative. Although criteria for certain metals are dependent on the hardness of the water, the values were presented as recommended in the criteria document, normalized to 100 mg/L CaCO₃.

E.1.2 Federal Ambient Water Quality Criteria

U.S. EPA’s 1985 Guidelines (Stephan et al., 1985) describe an objective, internally consistent and appropriate approach for deriving numeric water quality criteria for the protection of water class use and resident aquatic organisms. Ambient Water Quality Criteria (AWQC) were derived to protect the majority of aquatic organisms the majority of the time (U.S EPA, 2006). Chronic aquatic organism criteria are the lowest of the calculated number for the protection of aquatic organisms (Final Chronic Value), aquatic plants (Final Plant Value), or the water concentration that would result in a fish tissue burden that exceeds human health or wildlife consumption standards (Final Residue Value). In addition to the chronic AWQC for the protection of aquatic life described above, AWQC derived for the protection of human health from consumption of aquatic organisms are used in this report.

The toxic criteria for metals are based on dissolved metals concentrations; comparison of the total recoverable metals concentrations in surface water samples to these values is highly conservative. Criteria for certain metals are dependent on the hardness of the water. Where applicable, these values were normalized to the site-specific hardness concentrations in each pond.

E.2 Sediment

Screening values for sediment were obtained from two sources: U.S. EPA Region 3 freshwater sediment screening benchmarks¹ and consensus-based sediment quality

¹ <http://www.epa.gov/reg3hwmd/risk/eco/btag/sbv/fwsed/screenbench.htm>

guidelines (MacDonald et al., 2000). For the consensus-based concentration, both Threshold Effect Concentrations (TECs) and Probable Effects Concentrations (PECs) were presented. TECs are concentrations below which effects are unlikely to benthic organisms. Above the PEC level, effects are likely. Both sets of benchmarks were developed considering effects to benthic organisms. The TCDD screening value from U.S. EPA Region 3, which assumes 1% organic carbon, also considers the potential bioaccumulative properties of dioxins and furans.

Sediment benchmarks were found for all constituents except beryllium.

E.3 Milk

In the absence of any risk-based protective values for human consumption of cow's milk, federal drinking water standards (Maximum Contaminant Levels (MCLs), U.S. EPA, 2000) were used. In general, the MCLs are based on several factors, including risk to human health based on the consumption of drinking water at a rate of 2 liters per day and treatment technology (i.e., some MCLs are the lowest achievable concentrations that can be detected based on current technology). MCLs based on cancer risk are calculated based on a 10^{-6} cancer risk, while MCLs based on noncancer are calculated based on an acceptable hazard index of one. For nickel, the concentration typically found in milk samples from the University of Guelph dairy science department (www.foodsci.uoguelph.ca/dairyedu/chem.html) was used, as there is no MCL for nickel.

The Commission of the European Communities (CEC) (2002) has risk-based levels for dioxins (as 2,3,7,8-TCDD TEQ) in food products, including milk. The value of 3 pg/g lipid (equal to 3,000 ppq based on lipid) is the maximum (upper bound) risk level for dioxins as 2,3,7,8-TCDD TEQs in raw milk. While the MCLs are numbers promulgated by the U.S. EPA, the European number was chosen for inclusion in the report because:

- 1) The MCL for dioxins is not risk-based, but is technology based, and
- 2) The maximum risk level from the CEC is medium-specific (i.e., it is actually for milk, and not drinking water).

E.4 Hay

Literature values for hay were obtained from Kabata-Pendias and Pendias (1984). The hay collected for this program is timothy. Timothy values from the United States were not available. For arsenic, beryllium, and chromium, specific grass or hay values were not available, and the values presented represent concentrations typical of vascular plants. Values obtained for nickel and cadmium are based on concentrations in immature grasses, and the mercury screening value is based on grasses and feed legumes. All vegetation screening values are presented on a wet weight basis. Where applicable, dry weight screening values were converted to wet weight assuming the moisture content of grasses is 70% (U.S. EPA, 1993).

E.5 Fish

Screening values for mercury and 2,3,7,8-TCDD were found for fish tissue. The mercury value is the ambient water quality criterion (U.S. EPA, 2006) for mercury and reflects the acceptable level of methylmercury in edible fish. Since fish tissue were analyzed for total mercury, this value may be slightly conservative. The screening value for 2,3,7,8-TCDD was obtained from the U.S. EPA (1994) report Estimating Exposure to Dioxin-like Compounds. This value was derived using 60 fish tissue samples, assuming in the TEQ calculation that all non-detected congeners were equal to zero.

E.6 References

- Commission of the European Communities, July 1, 2002, Limits on Presence of Dioxin in Food, IP/02/959
- Fries, G. and D.P. Paustenbach, 1990. Evaluation of Potential Transmission of 2,3,7,8-Tetrachlorodibenzofioxin-Contaminateds Incinerator Emissions to Humans via Foods. *J. Tox. Environ. Health*, 29:1-43.
- Kabata-Pendias, A. and H. Pendias, 1984. Trace Elements in Soils and Plants. CRC Press, Inc. Boca Raton, FL.
- MacDonald, D.D., C.G. Ingersoll and T.A. Berger, 2000. Development and Evaluation of Consensus-Based Sediment Quality Guidelines for Freshwater Ecosystems. *Archives of Environmental Contamination and Toxicology* 39; 20-31.
- Maryland DOE. Title 26, Subtitle 8: Water Pollution
- Oppehuizen, A. and D.T. Sum, 1990. Bioaccumulation and Biotransformation of Polychlorinated Dibenzodioxins and Dibenzofurans in Fish. *Environ. Tox. Chem.* 9:175-186.
- U.S. EPA, 1990. Feasibility of Environmental Monitoring and Exposure Assessment for a Municipal Waste Combustor: Rutland Vermont Pilot Study.
- U.S. EPA, 1992. National Study of Chemical Residues in Fish. Office of Science and Technology. EPA/823-R-02-008.
- U.S. EPA, 1993. Wildlife Exposure Factors Handbook. Office of Research and Development, EPA/600/R-93/187. December, 1993.
- U.S. EPA, 1994. Estimating Exposure to Dioxin-like Compounds. Office of Research and Development. EPA/600/6-88/0052Cb.
- U.S. EPA, 2001. National Primary Drinking Water Standards. Office of Water. EPA 816-F-01-007 March 2001.

U.S. EPA 1998. Report from the Workshop on the Application of 2,3,7,8-TCDD Toxicity Equivalency Factors to Fish and Wildlife. March 31, 1998.

U.S. EPA 2006. National Recommended Water Quality Criteria – Correction. Office of Water EPA 822-Z-99-001. April 1999.

Weston, 2000. Final Summary of Non-Air Media Monitoring for the Montgomery County Solid Waste Resource Recovery Facility near Dickerson, Maryland. Roy F. Weston, Inc. February 2000.

Appendix F

Field notes - June 2007

①

06-11-07

0700 Onsite MCRRF

Sgt Bealson / ENSR MD
Kristen Durocher / ENSR NC

0730 Bill Davidson onsite

Map locations

1st / Artie Jay
2nd / Jim Evans if we can

Held S Briefing

Head to Artie Jay Farm.

Bill to call Jim Evans
- access issues

0815 Collect Blank
ASMOIAC

2 x 1L amber

~~2 x 250 mL plastic~~

061107

②

0825 AJMO1AA

3 ~~4~~ x 250 mL P metals
MS/MSD

2 x 250 mL amb dioxin/furan

0835 AJMO2AA

250 mL P metals

2 x 250 mL amb diox/fur

AJMO2AB

250 mL P metals

0830 AJHO1AA

3x foil metals MS/MSD
diox/furan

0855 AJHO2AA

1 x foil metals
dioxins

③

②

061107

0940 Arrive Rick Herbene Farm
Lucketts, VA

0945 RHHO1AA

1x foil metals
dioxin-furan

US Environmental Fed Ex #
9335 4834 0691

↳ dredge

↳ to be dropped at
Scott Brutson's house

1045 Arrive Fernand Pond

Calibrate YSI

sp Cond 940

pH 4 3.88

pH 7 7.55

pH 10 10.36

DO 100.0%

1000 µd/cr

4.00

7.00

10.06

coln Lot
PH10 5582
Cond 5551
pH4 5581
pH7 5570

exp
01-31-2008
01-09-2008
01-31-2008
01-23-2008

8

061107

11:00 Begin fishing

LFLMBO1AA

13"

use for whole & fillet

LFBG01AA

5"

6.5"

5.75"

1130 Sample Hay

1130 LFH01AA metals + dioxin

LFH01AB metals only

1135 LFH02AA metals + dioxin

LFBG02AA

6"

6.25"

7"

(4)

8

061107

LFLMBO2AA

11"

use for whole & fillet

1300 Deploy gillnets for
20 minutes
- no catch

1330 Head to MCRRF

- meet w/ Bill Davidson
& Joe Ladana

Go to Site 2 Landfill

→ denied access

→ Farmer leaser gated
road

1400 Back at MCRRF

- Joe Ladana left msg
for farmer

1430 Off Site

1500 CO's at hotel

- check tomorrow

(3)

061107

(6)

Plan for Tues 06-12

0745 Meet MCRRF

0800 Finish Lermond

- water

- sediment

- bluegill (?)

1030 Jim Evans Farm

- fish

- water

- sediment

IF Possible
Site 2 Landfill

- water

- sediment

061207

(7)

061207

0745 Meet at RRF

Bill Davidson

Scott Beatson

Kristen Dunscher

0800 To Lermond Pond

ISI cond 984.

1000

pH4 3.98

4.00

pH7 7.41

7.00

pH10 9.84

10.00

0825 SD Blank

100%

LFSDO1AC

2 x 250 mL P

↳ 60t met

↳ diss met

2 x 1L amber

↳ dioxin/furan

0830 Begin cast fishing
for add'l bluegill
& catfish

001207

8

Near shore WQ

129 $\mu\text{S}/\text{cm}$

5.01 mg/L

23.54 °C

8.70 SU

0845 LFSW01AA
~~LFSW01AB~~

250 mL P diss met hard

250 mL P tot met hard

1-L amb DF

0850 LFSW02AA
LFSW02AB

WQ

tot depth 4'

2'

23.70 °C

134 $\mu\text{S}/\text{cm}$

3.99 mg/L DO

46.0% DO

8.10 SU

061207

9

0900 LFSW01AA

1 x 250 mL g metals TOC

1 x 500 mL amb DF

brown, dark gray

no odor

VF sand silt

muck

0910 LFSW02AA

250 mL g met TOC

500 mL amb DF

0910 LFSW02AB

250 mL g

250 mL amb

met
DF

black organic on surface

dark gray

no odor

VF sand silt

muck

061207

(11)

0950 LFH01AA-R metal / GF / lip
LFH01AB-R metal
0955 LFH02AA-R met / DF lip

Note: samples collected
06-11-07 for hay from
Lermond Farm were
from wrong bales
- discard

LFH01AA
LFH01AB
LFH02AA

1010 Large mouth bass
17"

- just ingested bluegill
- visible in gullet
- club bass
- will remove bluegill
at lab add to
LFBG01AA
- add LMB to
LFLMBO1AA &
note MS/MST

061207

(11)

1015 Catch bluegill
5.25"
- add to LFBG02AA

11:02 At Inverness Farm
- Tim Evans

51
24.35°C
23.4 μ S/cm
91.7% DO
7.65 mg/l
8.62 SC

6' ft deep
reading 3' ft

1120 EFSW01AA
2x 250 mL P
↳ tot met hard
↳ diss met hard
1x 1L amber DF

061207

(12)

1130 EFSW02AA

250 mL P diss net hard

250 mL P tot net hard

1-L amb DF

1140 EFSD01AA 500 mL amb DF
250 mL g net / tot

1300 Pull gill net

3x Bluegill

4" 4" 3" 7"

-Bill Davidson offsite

1315 Deploy gill net from
N corner of pond to
dock

1350 Catch 3" bluegill

1400 Jim Evans on site w/
rod to help fishing

1405 Catch bluegill

1415 Pick up gill net

13 x Bluegill; 1 snapping
3-6" turtle ~15"

Total 18 bluegill

9: EFBG01AA @ 1300

9: EFBG02AA @ 1415

1200 EFSD02AA

250 mL g net tot
1-L amb DF

061207

(13)

Cast for 30 minutes more
for bass

- no bites

1500 At RRF

Godfrey's cell #

240-372-0124

Won't be on site tomorrow

Joe Ladana

→ key is in a jug in

a pole near gate

Ship Katahdin cooler 84720624
5093

Agree to meet Scott @

0700 Wed 6/13

Weather all day

Sunny

high ~ 85°F



061307

(14)

0700 Met. w/ Sate Beaton at
MCRF

Site 2 Landfill

Sunny, hazy 65°F

0715 Begin fishing

6" Bluegill
7" Bluegill
2x4", 1x6") SLB601AA
AB
20730

0800 SL5W01AA

3x 250 mL P

↳ tot met HS/MSD

↳ hardness

3x 250 mL P

↳ diss met HS/MSD

↳ hardness

1x 1L amber

↳ dioxin/furan

061307

(15)

0810 SL5D01AA

1x 250 g

↳ metals

↳ TCC

1x 500 mL amber

↳ dioxin/furan

Brown

Silty sand

lot of fine organic
debris

No odor

0830 SL5W02AA

250 mL P

↳ total metals

↳ hardness

250 mL P

↳ diss metals

↳ hardness

1-L amber

↳ dioxin/furan

⑩

061307

0840 SLSD02AA

250 mL g

↳ metals

↳ TOC

500 mL amber

↳ dioxin/furan

medium sand w/ silt

some detritus

no odor

brown

Bluegill
4.50"

6"

SLBG02AA

0845

Bass
1.1"

SLLMB01AA

0900

1045 VSI Calibration

cond

989

1000 $\mu\text{S/cm}$

pH4

4.29

4.00

pH7

6.87

7.00

pH10

10.40

10.00

DO

100%

⑪

⑩

061307

⑪

26.62°C

8.79 SU

8.99 mg/L DO

112.0 % DO

~~8989~~ 3 $\mu\text{S/cm}$

WQ Site 2 Landfill

4 1/2" Bluegill
5" Bluegill

SLBG02AA w/

2.03 P 16

5" Bluegill

4.5" Bluegill

↳ add to SLBG01AA/AB

2x4" Bluegill

4.25" Bluegill

13.75" Bluegill

13" Largemouth bass

SLLMB02AA

@ 1100

Add to
SLBG02AA

~~D~~ 061307

(18)

1300 At PRF
- Check out

Buy dry ice & 2 coolers

Pack samples

3 → Katakahlin

847206245120

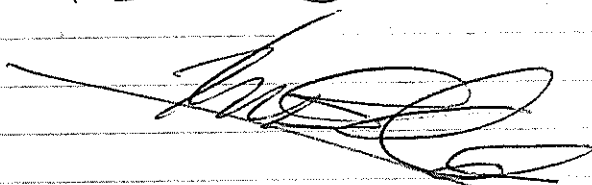
5082

5119

2 → Aug
both

8583 0012 8803

1800- Done, Check in
w/ Brian Stormund

~~~~